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STUDIEN ZUM BURGWALL VON MIKULČICE

GOMBÍKY FROM MIKULČICE AND THEIR REGIONAL AND SUPRAREGIONAL CONTEXT



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CZECH ACADEMY OF SCIENCES, INSTITUTE OF ARCHAEOLOGY, BRNO

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Czech Academy of Sciences, Institute of Archaeology, Brno
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Introduction

The focus of this book is a single artefact of Great Moravian material culture – the *gombík*. The term *gombík* (*sg.*) was introduced into Czech archaeology more than 70 years ago (EISNER 1947, 146). Spherical hollow metal buttons with a loop, as traditionally denoted by this term, have been known from early medieval Moravia since the beginning of the 20th century. The excavations of the first churchyards at Moravian sites brought the discoveries of many exclusive *gombíky* (*pl.*), and the artefact soon became a characteristic attribute of Great Moravian archaeology. *Gombíky* have been oft-debated and in their own way contradictory artefacts of Great Moravian archaeology for decades, a controversy with a great number of ambiguities at its root. These are essentially ‘dead’ objects that no longer occur in living culture, and we do not know their original designation (name) at the time they were actively used. And while we are aware that they formed part of clothing, it is not possible to define their exact function. Although a great deal of energy was put into collecting models for the exotic motifs that appear on *gombíky* decorated with chasing, the search for exact analogues of *gombíky* from graves outside the territory of Great Moravia has been rather unsuccessful. An aura of Great Moravian cultural exclusivity has formed around *gombíky*, supported by their heavy occurrence in the cemeteries of Great Moravian centres. The idea was born of *gombíky* as a status symbol of Great Moravian elites, linked preferentially to certain age groups and sex/gender, which are general traits that have been associated with *gombíky* for several decades. However, the mechanisms of the emergence of *gombíky*, their own Great Moravian development and subsequent disappearance, as well as the verification of their purpose in the living culture of Great Moravia, have not yet been described in sufficient detail on specific material and argued in detail – research that is the goal of this publication.

Methodologically, I consider the theoretical modelling of the possible use and development of *gombíky* within a defunct society to be important. This modelling is based on the theoretical works of Anglo-Saxon archaeologists, through which I refine my own method for analysing Great Moravian

gombíky. The book begins with a short overview of our current knowledge and then continues with the characteristics of the actual artefacts and the processed assemblage and the specification of methodological starting points. The most extensive part of the text is my own analysis of empirically obtained data, a combination of the technical and technological data of the *gombíky* with the basic demographic information of the individuals buried with these artefacts. The analysis also includes a comparison of the Mikulčice assemblage of *gombíky* with other artefacts discovered at Great Moravian cemeteries of a different character and location. The book includes a relative chronology of *gombíky* from selected graves in superpositions from church 3 in Mikulčice. I subsequently interpreted the analysis by evaluating the practical function, social meaning and symbolic significance of the *gombíky* (NEUSTUPNÝ 1993, 5–159). Before this evaluation, I asked myself a number of specific questions related to the interpretation of the *gombíky*. What was the purpose of *gombíky* in the living culture? Did they serve a practical function as clothing fasteners? Are they typically Great Moravian? Or are they unknown from other areas due to different burial customs? Were they perceived by Great Moravian society as a symbol of social status? Can we designate them as objects of a redistribution strategy? Or were they apotropaic objects? Children’s amulets? What types of *gombíky* were at the beginning of their development and how did *gombíky* continue to evolve? These are some of the basic and also crucial questions that can be asked about *gombíky*. All of them are aimed at uncovering the purpose of *gombíky* in the former Great Moravian culture, which was the objective of this book.

The research of *gombíky* as an artefact typical of the Great Moravian elite has the potential to provide information on specific issues of the production and distribution strategies of the highest levels of society. This assumption is related to the possible use of *gombíky* as prestigious goods, which could have formed an important part of the economic and political strategies of the Great Moravian elites. *Gombíky* could possibly also facilitate the tracing of supra-regional contacts between elites, which can be

reflected in visible influences in the production of regionally specific prestigious artefacts. To this end, the book offers some general trends observable on the basis of the processed material. In the future, it will be appropriate to support the indicated trends with a detailed study of production technology using special instrumentation and also to verify the results with experimental production. This follow-up research is partly integrated within the framework of the already ongoing project *Into the Great Moravian Jewellery. Interdisciplinary Research, Analytical Conservation and Documentation of Jewellery Production from the Mikulčice and Staré Město sites* (project No. DH23P03OVV020, NAKI III programme of the Ministry of Culture, head of the project PhDr. Lumír Poláček, CSc.), as well as in the framework of interdisciplinary research on early medieval jewellery implemented with the support of the programme *Strategy AV21: Europe, the Roots of Integration, the Formation of Local, National and European Identities* (Academy of Sciences of the Czech Republic), the results of which could not be integrated into the current work.

This publication belongs to a series of books that has been devoted for three decades to various archaeological phenomena associated with the early medieval fortified settlement of Mikulčice and with the hinterland of this settlement. But as it is possible that the book will fall into the hands of a reader unfamiliar with the early medieval development of Central Europe, I also include at the beginning of the work a short presentation of the cultural context of the occurrence of gombíky. The cultural horizon dealt with in this book is related to the development of the political-power entity referred to in modern historiography as Great Moravia, a term encompassing manifestations of archaeological material culture in the territory of Moravia and partly also in contemporary Czech Silesia and southwestern Slovakia connected on the basis of historical reports to the 9th century (see POLÁČEK ET AL. 2020; KOUŘIL ED. 2014). Great Moravia can be described as a power-political unit on the periphery of the Frankish Empire (KALHOUS 2020B, 15–21). The 9th century was marked by the adoption of Christianity in the Great Moravian region. An important role in the establishment of the Church organisation was initially played by the area of the Bavarian episcopate (WOLFRAM 2014, 28–33), but at least from the middle of the 9th century, the influence of the Frankish Church organisation was disrupted by the arrival of the Byzantine missionaries Cyril and Methodius, and the process of Moravian church autonomy was soon completed by the creation and later also the recognition of its own Slavic liturgy and the emergence of the Pannonian bishopric (MĚŘÍNSKÝ 2006, 540–554; KALHOUS 2020A). The blending of Frankish and Italian-Byzantine influences is evident in the surviving material culture (PROFANTOVÁ 2011; TURČAN 2011; UNGERMAN 2020A; 2020E). Some archaeological finds also reflect the Avar cultural tradition of the Carpathian Basin in the 8th century (CF. BENDA 1978;

SZÖKE 2010, 38–41; GALUŠKA 2014, 132–133; UNGERMAN 2018, 509; 2021, 29–30). The backbone of Great Moravian core territory was represented by the Morava River, near which the three central agglomerations were situated, among them Mikulčice, which is traditionally regarded as the main residence of the ruling Mojmir dynasty (E.G. POULÍK 1975, 153–159; POLÁČEK 2020, 91–103). Support for this theory is the high concentration of preserved masonry architecture and the breadth and wealth of material culture at the actual site as well as the extensive early medieval settlement in the area surrounding the stronghold.

The book provides a detailed study of gombíky from the Mikulčice site and its surrounding area (Fig. 1) and places these unique artefacts into the broader context. The early medieval settlement of Mikulčice is regarded as a former centre of Great Moravia, and like other Great Moravian central sites, it was situated in the valley of the Morava River on today's Moravian-Slovak border. The former residential area had a relatively large area, one that can be divided into several parts.¹ The fortified *acropolis* was the core, in the northern part of which stood the most important buildings in the entire agglomeration: researchers have identified the foundations of the 'palace', four masonry churches, as well as several burial areas with church cemeteries with over a thousand graves in total. A fortified *outer bailey* was attached to the west side of the acropolis but contained no stone buildings or cemetery; instead, the area provided an image of densely built wooden houses. The inhabited unfortified area surrounding the fortified core (at a distance not exceeding 700 m from its centre) is referred to as an *extra-mural settlement*. In addition to settlements, this space also contained stone churches (churches 6, 7, 8, 9 and 10) surrounded by cemeteries with more than a thousand additional graves. Those central parts are traditionally defined in the literature by the local term Mikulčice-Valy Stronghold. Together with the newly defined *peripheral part*, which continues from the extra-mural settlement and ends at the border of the river valley, with these parts forming the *Mikulčice-Kopčany*² agglomeration (POLÁČEK 2020C, 107–111; POLÁČEK ET AL. 2021, 13, 51–52; HLADÍK, MAZUCH, LÁTKOVÁ 2022). Elevated edges of the floodplain and the adjacent landscape on both sides of the river valley within a radius of approximately 10 km from the stronghold are interpreted as the *economic hinterland* of the agglomeration. Documented at the periphery of the agglomeration and its hinterland are dozens of settlements and cemeteries from the 9th century, as well as a church – the Church of Saint

1 For more on the Mikulčice-Kopčany agglomeration, see, e.g. POLÁČEK 2007, 499–524; 2008, 257–298; 2010, 31–55; 2020a, 139–147; 2020b, 107–112; POLÁČEK, VELEMÍNSKÝ 2013, 405–422.

2 The agglomeration is located in the cadastres of two contemporary municipalities: Mikulčice on the Moravian side of the river, Kopčany on the Slovak side. For this reason, the early medieval settlement area is referred to by the names of both municipalities.

Margaret - the lone church still standing in the cadastre of Kopčany.

This book is a slightly modified English translation of a Czech dissertation defended in 2022 at the Institute of Archaeology and Museology of the Faculty of Arts of Masaryk University (Krupičková 2022). Compared to the original work, this book has some

partial data updated and it includes a catalogue of gombíky discovered at the central parts - the acropolis and extra-mural settlement of the Great Moravian stronghold of Mikulčice-Valy. All standard gombíky photos in the whole book, including the catalogue, are shown approximately at a scale of 1 : 1 (unless otherwise stated).

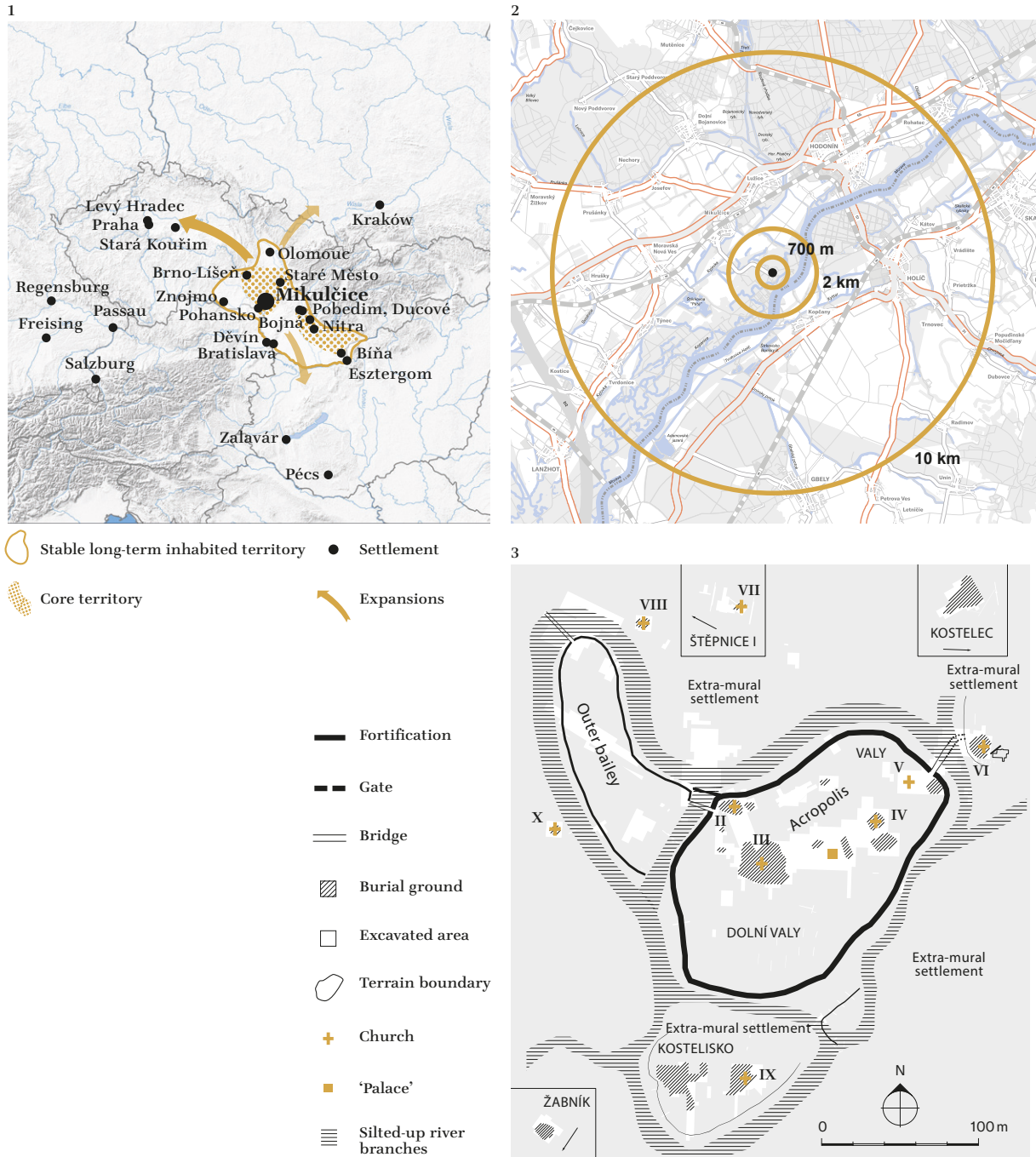


FIG. 1 | Location of Mikulčice site. 1 - Mikulčice and Great Moravia within the Central European region; 2 - spatial definition of the Mikulčice site: Mikulčice-Valy Stronghold (from the centre to 700 m), Mikulčice-Kopčany Agglomeration (from the centre to 2 km), economic hinterland of the agglomeration (from 2 km to 10 km); 3 - Mikulčice-Valy Stronghold in detail.

There are several people who helped me while I was writing my dissertation and during the course of its transformation into its current book form, and I would like to express my heartfelt appreciation to them here. The first is my patient supervisor, prof. Mgr. Jiří Macháček, Ph.D., head of the Institute of Archaeology and Museology of the Faculty of Arts of Masaryk University, who provided me with methodical guidance and stimulating discussion on the chosen topic during the preparation of my dissertation. I also warmly thank the former director of the Czech Academy of Sciences, Institute of Archaeology, Brno, PhDr. Lumír Poláček, CSc., who gave me the opportunity to process the largest set of Great Moravian gombíky originating from the Mikulčice-Valy site and helped me with suitable working conditions and, in particular, gave me his trust during the writing of the dissertation. In the preparation phase of the dissertation, my former colleagues from the Mikulčice Research Base team, Ing. Zdeňka Pavková and Petr Čáp, provided great assistance in processing the

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1. Current state of gombík research

Gombíky have been studied by the majority of scholars who have dealt with Great Moravian funeral sources, most often in connection with the processing of material culture from excavated cemeteries. On the one hand, the following overview includes a selection of the earliest works mentioning gombíky as a component of the material culture of Great Moravia, followed by chapters devoted to gombíky in the analytical parts of catalogues of prominent cemeteries and, finally, archaeological studies focussed specifically on gombíky¹ (Tab. 1).

1.1 RESEARCH OVERVIEW OF GREAT MORAVIAN GOMBÍKY

Gombíky appear in the professional literature in the first half of the 20th century. At first these were summarising studies devoted in general to Great Moravian ornaments and clothing accessories based on a small assemblage of artefacts. The more systematic description of Great Moravian material culture began with the start of extensive excavations of Great Moravian cemeteries, i.e. roughly in the middle of the 20th century. A large number of new finds – including gombíky – were published and in certain cases also evaluated in catalogues of cemeteries and summarising monographs. At the centre of interest was a chronological-typological analysis of artefacts conducted especially by means of an analysis of jewellery techniques and decorative motifs. In the last three decades, research has included the comparison of gombík finds with the demographic data of the individuals buried with them, and the first material and technologically oriented studies have also been published. The application of theoretical models (e.g. from the environment of Merovingian and Anglo-Saxon cemeteries) remains thus far rare.² We can also follow the gradual transformation of addressed issues related to the aforementioned approach. Initially, the focus was mainly on the practical function of gombíky, but gradually the interest of researchers shifted to the level of the social meaning and the symbolic significance of their use, a trend on which this book also builds.

1 For a detailed history of gombík research, see PAVLOVIČOVÁ 1996, 97–98 and, most recently, CHORVÁTOVÁ 2008b, 209–211.

2 To date, only H. CHORVÁTOVÁ (2009) has looked at gombíky in this way.

1.2 DEVELOPMENT OF TERMINOLOGY

Over the course of the past century, the professional designation ‘gombík’ gradually took form; their name in living culture is unknown to us. But to this day there is not widespread agreement among scholars. In the beginning, all ‘Slavic’ spherical artefacts with a loop were simply labelled as buttons, though in connection with their finds, L. Niederle elaborates on the etymology of the term gombík/gomb (NIEDERLE 1913, 456, 677; SCHRÁNIL 1925, 180). Jan Eisner introduced the term into the literature seventy years ago (EISNER 1947, 146), and almost immediately this designation became part of general archaeological terminology, even though for two decades it was reserved for hollow sheet metal artefacts with chased decoration (HRUBÝ 1955, 206; DOSTÁL 1966, 60). With the growing inventory of finds, the term ‘gombík’ expands to include all types of artefacts with a similar construction regardless of their material and size, and this approach is soon also challenged in publications (KLANICA 1970A, 421; POULÍK 1975, 69–70). Similar to how the typological scope of artefacts covered by the term gombík was addressed in the 1970s, in the last decade Hana Chorvátová’s work and her rejection of buttons as functional clothing fasteners stirred the discussion around gombíky. The model for the author’s reinterpretation of Great Moravian fashion was magnificent Byzantine tunics furnished with decorated sheet metal pendants (in German Anhänger) (E.G. BOSSELMANN 2001, 489–490; BÜHLER 2014, 191–192, ETC). She went on to suggest a similar use for gombíky, including the alternative term spherical pendants (CHORVÁTOVÁ 2008, 211–212), which, however, did not take hold in the professional community. In her later work, the author herself backed away from this term and uses the designation ‘gombíky’ instead.

1.3 APPLIED TERMINOLOGY

In the past, the terminological specification of buttons and gombíky was motivated by efforts to distinguish specimens with chased decoration from other types, an approach that has its logic in the fact that gombíky with chased decoration reach considerable dimensions and, due to their fragility, could only with difficulty function as reliable and durable fasteners. At the same time, only gombíky with chased decoration are an exclusively Great Moravian fashion accessory (DOSTÁL 1965, 377, 392–394), as will be explained below, and would ‘deserve’ a certain terminological refinement. On the other hand, many

TAB. 1 | Overview of archaeological research theses on Great Moravian gombíky.

Author	Main subject(s)	Practical function of gombíky	Social meaning and symbolic significance of gombíky
Lubor Niederle (1913, especially 455-457, 677)	Introducing gombíky into the literature: distribution, function, form, terminology	Practical function (fastener) and clothing ornament	-
Josef Schráníl (1925, 180)	Inventory of known finds from Czech Republic: find context (number of specimens in grave), finds from rich graves; importance is attached to ornamentation	Evidently a functional object - fastener (designated as buttons)	Occurrence in graves of wealthy population
Jan Eisner (1947, 146)	Analogies (Byzantine origin), chronology	Evidently a functional object - fastener (term 'gombík' used for the first time)	-
Vilém Hrubý (1955, 206-214)	First typology, definition of terminology (large chased gombíky, other buttons), chronology, origin of motifs and analogies	Functional object - fastener and decoration (hair ornament, necklace pendant), term 'functional ornament'	-
Bořivoj Dostál (1966, 60-65)	Elaboration of typology, chronology, origin of motifs of chased gombíky	Evidently a functional object - fastener	-
Zdeněk Klanica (1970, 421-446)	Function, origin and analogies (especially chased motifs)	Clothing fasteners	Gombíky intended for 'ruling class of the Moravian tribe'
Josef Poulík (1975, 55-56)	Function, origin, unification of terminology (gombík)	Ornament (fragile)	-
Zdeněk Smetánka (1994, 105-115)	Based on gombíky from Lumbe Garden, addresses issues concerning cultural influences and chronology, as well as the activities of independent Bohemian (Prague) workshops	-	-
Eva Pavlovičová (1996, 95-153)	Serialisation diagrams focussed on chronology, typology, marginal functions, demographic structure of wearers	Functional plurality	Accents the continuity of occurrence in richly furnished graves at central hillforts
Luděk Galuška (1996, 99-102; 2013, 182-186; 2017, 167-169)	Chronology, typology, origin	Clothing fastener; large and fragile ornaments of high artistic value	Status symbol of members of Moravian ruling classes, protective amulet
Milan Hanuliak (2004, 177-179)	Summary of finds from Slovakia, including demographic structure, social context	Functional part of clothing (included among clothing accessories)	Gombíky were used by the higher social classes (based on other grave finds), concentration of finds at central Great Moravian sites
Blanka Kavánová (2009, 127-135)	Material-technological analysis of gold gombíky, social context in connection with other burial attributes	-	Finds of gold gombíky in graves of 'exceptional individuals' (church graves, burials with coffins and with other rich inventory)
Hana Chorvátová (2008a, 153-170; 2008b, 209-218; 2009, 7-19; 2015, especially 107-147)	Chronology, demographic structure and ethnicity of wearers	Ornament (pendant)	Status symbol - connected with Moravian elite (low percentage in graves, wealth of other grave goods), they define (Great) Moravian ethnicity (do not occur elsewhere)
Jiří Košta (2014, 37-39; 93-99; in: Košta, Lutovský 2014)	Chronology, origin, analysis of Kolín specimens and their analogies	Ornament (pendant)	Key indicator of social and political-ethnic identity
Nada Profantová (2015, 96-99, 170)	Overview of Bohemian finds, basic typological description and connection to age and gender of individuals buried with them	Clothing ornament (classified among functional clothing accessories at Klecany II cemetery)	Connection with Great Moravian elites

other factors such as shape, shell construction and loop, the materials used and method of deposition in the grave and connection with sex/gender and age of the deceased, very similar for all hollow sheet metal specimens, which puts cracks in the theory of the exclusivity of specimens with distinctive chased decoration. Based on the current state of knowledge, I see no sound reason for reviving terminological duality, and I refer to all spherical sheet metal and glass artefacts as gombíky. I choose a different approach for specimens outside the Great Moravian milieu. If a more precise function is unclear, I choose a combination of the terms 'gombík' (quotation marks intentional) and gombík-like artefact. I use the term button or pendant if the type of artefact has been repeatedly published under this designation (e.g. I classify small cast fasteners of Oriental clothing among buttons, whereas I refer to vertically divided cast artefacts found in the ancient Hungarian environment and Byzantine clothing ornaments as pendants). As for the widespread use of the term spherical pendant, I do not believe that it is possible to reinterpret the entire spectrum of Great Moravian buttons all at once, in part because preserved textile remains allow some of them to be identified as genuine clothing fasteners (KRUPÍČKOVÁ ET AL. 2019, 87–106). Moreover, the entire discussion assumes a slight shade of irrelevance once we realise that the interpretation of gombíky goes significantly beyond functionality to the level of social meaning and symbolic significance (which I deal with in detail later throughout the entire text).

1.4 AN INTERNATIONAL RESEARCH OF GOMBÍKY

Gombík-like artefacts have also been discussed in the professional literature outside the Czech and Slovak republics (Tab. 2). These are mostly material works, where a survey of buttons and pendants appears in the form of a brief typology and chronological classification, possibly with reflection on how the given artefact was used and any existing analogies. However, only some of the finds can be linked to Great Moravian culture (I also address the issue in Chapter 4.4.1 *Gombíky as representatives of ideological fusion*).

Although for now there is no established international terminology, it is essentially possible in early medieval middle, southeastern and eastern Europe to follow several different groups of spherical clothing components that differ by size, material and especially production technology, body construction and the use of various jewellery-making techniques. Their chronological and cultural classification and method of use also depend on their technical and technological properties. Clearly distinguished from the assemblage is a group of small artefacts cast from a single piece, spherical or compressed ('lens-shaped' to 'mushroom-shaped'). These cast clothing components are represented in central Europe mainly at ancient Hungarian cemeteries, where they served as

clothing fasteners (ANDRÁSI 2015, 153–175; on the ethnic testimony, see GIESLER 1981, especially 26–29). They also often occur in the Bijelo-Brdo burial grounds, where they are hung on necklaces (KOROŠEČ 1950, 95; REJHOLCOVÁ 1995B, 30; HANULIAK, REJHOLCOVÁ 1999, 75). They are not related to the Great Moravian cultural sphere and are a reference to fashion of a nomadic (Asian) origin (IERUSALIMSKAJA 1978). They have been published mainly from the Carpathian Basin (Hungary: GÁLL 2013, 698–703; NEPPER IBOLYA 2002A; 2002B, especially 236–239 KÉP.; ISTVÁNOVITS 2003, 298–299; ŠPEHAR, STRUGAR BEVC 2016, 79, FIG. 7.3, 123; Romania: OȚA 2008, 122–123; southwest Slovakia: REJHOLCOVÁ 1995A, 37, 72; HANULIAK 2004, 177; Pannonian Croatia: DEMO 1996, 49, 79, 86, 105; TOMIČIĆ 2011, 118–119, TAB. 4, 13, 15, 19), but also from the Balkans and Lower Danube Region (Bulgaria: VAŽAROVA 1976, 377), while also appearing marginally at other sites connected with supraregional exchange (e.g. Ptuj, Slovenia: KOROŠEČ 1950, 95–97; Birka, Sweden: ARBMAN 1940, TAF. 93; GELJER 1938, 143, 150, TAF. 33). Less clear is the function of another group of nomadic cast spherical artefacts, this time hollow and divided lengthwise (ANDRÁSI 2015, 153–155); these are also found outside the actual ancient Hungarian cemetery. In central Europe, both types of the presented clothing components are a matter of post-Great Moravian development in the 10th century. Problematic here is a more precise determination of a wide spectrum of solid and hollow buttons, cast or sheet metal (?), typically small and undecorated, from the eastern Mediterranean, northern Egypt, the Black Sea and Caucasus (e.g. the Iason, Turkey: BERTI 2012, 187–211; Sardis, Turkey: WALDBAUM 1983, 126, 134–136, PL. 46, 50–51; Sarachane, Turkey: HARRISON 1986, 262–264; Moščevaja Balka, Russia: IERUSALIMSKAJA 2012, 293–295, 349; Balta, Russia: GONČAROV, KADIEVA 2019, 12–42, etc.), with regard to the uncertain dating and production technology specification. These are interpreted highly variably as clothing fasteners, pendants or even beads with a loop. Glass buttons/gombíky with a metal loop form another group of spherical clothing accessories. Dozens of these have been found at Moravian and Slovak cemeteries (Mikulčice, Staré Město – Na Valách, Dolní Věstonice, Čakajovce), in western Hungary (Zalavár: MÜLLER 1992, 285; SZÓKE 2010, 9–52; 2014), and in the distant Lower Danube Region (Galiche, Bulgaria: VAŽAROVA 1976, 230–231). A variant of these are all-glass specimens (i.e. they also have a glass loop, FROLÍK, SMETÁNKA 2014; VAŽAROVA 1976, 377; SZÓKE 2021, ABB. 102), rare in the studied area are finds of *bound pendants* (glass spheres hung in criss-crossing metal bands), apparently an indication of supraregional apotropaic (protective) magic, known in the Middle Ages especially in western Europe (Moravia: KALOUSEK 1971, 136–137; HRUBÝ 1965, 40, OBR. 13: 8; BULGARIA: VAŽAROVA 1976, 198; western Europe: KORNBLUTH 2015, 50, 54; 2019, 130–132).

The spherical sheet metal specimens themselves, usually with a decorated surface, represent the most discussed group in connection with Great Moravia. The published finds indicate that they never occur at cemeteries in the same numbers seen in the territory

TAB. 2 | Selection of foreign publications describing gombík-like artefacts.

Author	Terminological designation	Type of artefact	Origin, use
Réka Andrási (2015, 153–175)	Fülesgomb	Hungary, 10th–11th century; cast buttons, typology according to shape (spherical, hemispherical, oval, conical, mushroom-shaped, pear-shaped)	Fastener: caftan, lower garment, head cover; buttons for hanging necklace strings between them; works with analogies from Moshchevaya Balka
Anastassios C. Antonaras (2012, 121, 124)	Buttons	Greece (Thessaloniki), 9th–13th century; solitary find: gold with vertical ribbing, discoid	Clothing fastener
Antje Bosselmann-Ruickbie (2011, 24–25)	Kugelförmige Anhänger	Bulgaria (Preslav), second half of the 10th century; decorated spherical sheet metal pendants (granulation, filigree, enamel) and long (spindle-shaped) pendilia (granulation, filigree)	Decorative pendants of ceremonial crowns, or loros pendants; parallels in Great Moravia and in the Balkans
Birgit Bühler (2014, 191–192)	Kugelförmige Anhänger (gombiky)	Pannonian Croatia, gold specimens from Brestovac (second half of 8th century – beginning of 9th century), one undecorated, second decorated with granulation and filigree	Derived from Avar jewellery (according to Szőke), used as pendants
Horia Ciugudean (1996, 12, 25; 2006, 28, 29)	Pandativ / butoni	Romania, 9th–10th century; two typological groups: hollow sheet metal pendants (smooth, with enamel) and cast (mushroom-shaped) buttons	Spherical: pendants/ mushroom-shaped: buttons
Uwe Fiedler (1992, 192–194)	Knöpfe, knopfartige Anhänger	Lower Danube Region, at least 9th–10th century; simple spherical from two halves (continuous occurrence), small massive (Early Hungarian), pyramidal sheet metal, chased sheet metal (!), glass (!)	Varied use: buttons, pendants on necklace, sound effect
Erwin Gáll (2013, 698–703)	Gombok: fülesgomb, lemezgomb	Carpathian Basin, 10th century; typologically divided into those cast from one piece (spherical, mushroom-shaped), specimens cast from two vertically connected pieces (smooth, with vertical ribs) and sheet metal undecorated or decorated specimens with granulation and filigree	Clothing fastener
M. Nepper Ibolya (2002a, b, esp. 236–239 kép.)	Fülesgomb, gombok	Hungary, 10th–11th century; cast buttons, typology: vertically divided, mushroom-shaped (spherical with engraved decoration) or vertical ribbing	Clothing fastener, combined with other metal ornaments
Eszter Istvánovits (2003, 298–299)	Gombok: öntött füles bronzgombok, öntött félgombok, vasgomb, granulált ezüstgombok	Hungary, 10th–11th century; cast buttons, typology: solid cast, cast divided, exceptionally (2 spec.) small silver representing the hacksilver horizon	Clothing fastener
Dušan Jelovina (1976, 113–114)	Dugmad	Croatia, 8th–9th century; sheet metal buttons, two typological groups: simple undecorated and luxurious with filigree and granulation (Trilj)	Clothing fastener of Byzantine origin, finds from Trilj regarded as direct imports; Sheet metal spherical buttons in Croatian folk costume to this day
Josip Korošec (1999, 26)	Gumbi	Slovenia (Ptuj), 9th century; two typological groups: small cast (spherical/mushroom-shaped) as part of Bijelo Brdo and Early Hungarian find units, three ‘Great Moravian-type’ specimens with plant ornament, but allegedly also cast ¹	Clothing fasteners, pedants in necklace, ornaments

TAB. NOTE 1 The issue of the ‘Great Moravian’ inventory of Ptuj graves was most recently addressed by S. HENDRYCHOVÁ (2018, 198–203), who mainly points to the multicultural environment of the Ptuj cemetery and historically documented contacts with Zalavár.

Author	Terminological designation	Type of artefact	Origin, use
Karoly Mesterházy (2000, 211–227)	Díszgombok, lemezgombok	Carpathian Basin, 9th–10th century; two typological groups: large decorative (i.e. with chased decoration) and small sheet metal gombíky (i.e. with soldered decoration)	Overview of finds from region, ‘large decorative’ come from Great Moravia – in the Carpathian Basin they appear as war plunder or evidence of exchange; small sheet metal: buttons, large decorative: ornaments
Silviu Oța (2008, 122–123)	Nasturi	Romania, 10th–11th century; several typological groups: cast solid spherical (mushroom-shaped, cast vertically divided, horizontally divided (sheet metal?) undecorated and also with the application of filigree and granulation; even a mushroom-shaped bone button with ribs	Clothing fasteners appearing continuously up until the 20th century
Maja Petrinec (2009, 160–162, 294–296)	Puceta, Knöpfe	Croatia, 8th/9th century – lone gold pair from Trilj with granulation; second half of 9th–10th century – more frequent occurrence, elongated shape, glass circular inserts; always decorated with filigree and granulation	Clothing fasteners
Mechthild Schulze-Dörrlamm (2010, 128–130)	Kugelknöpfe	Moravia, 9th century; sheet metal gombíky with chased decoration	Great Moravian gombíky are comparative dating material for the treasure from Sănnicolau Mare
Béla Miklós Szóke (1996, 98–100; 2010, 38–41; 2020, 446, 448)	Glasknöpfe, Blechknöpfe	Western Hungary, 9th century; glass buttons, sheet metal gombíky with chased and soldered decoration	Late Avar origin of jewellery – including gombíky – which developed throughout the entire territory of the former khagnate
Živka N. Važarova (1976, 377)	копчета, стъклените копчета	Bulgaria, 6th–11th century; diverse typology: solid cast, halved cast, sheet metal undecorated and decorate, glass with metal loop, glass with glass loop, bound pendant (exceptionally)	Jewellery related to clothing

of Great Moravia or in territory under its heavy power influence, though documented exceptions relativise the notion of the Great Moravian exclusivity of these artefacts. The discussion was focussed primarily on finds from the Croatian sites of Trilj and Brestovac (a pair of gold sheet metal ‘gombíky’ with granulated lower hemisphere, PETRINEC 2009, 160, 194; two unpaired parts of gold ‘gombíky’ – undecorated and decorated with filigree and granulation, BÜHLER 2014, 191–192), from Ptuj in Slovenia (gombíky with plant ornament in two graves, KOROŠEC 1999, 26, TAF. 37: 6, 7, 7A), from Dolní Lukovitz in Bulgaria (sheet metal gombík with vertical ribs, VAŽAROVA 1976, 208–209, here incorrect table numbering), from Bavarian Matzhausen (a pair of unique sheet metal gombíky with anthropomorphic ornament, STROH 1954, 30, TAF. 1: 1, 2, HASIL ET AL. 2020, 333–345), and especially from Zalavár in Hungary (the entire ‘Great Moravian’ spectrum of gombíky, SZÓKE 1996, 98–100; 2014, 104–107). Other Great Moravian sheet metal gombíky are mentioned in connection with ancient Hungarian graves, where they probably reached as an article of trade or war plunder (MESTERHÁZY 2000, 212–213). Sheet metal gombíky with chased decoration found outside the

core of Great Moravia are typically connected with Great Moravian imports (often in connection with historically documented events), whereas sheet metal specimens with soldered decoration created by filigree and granulation are usually considered as artefacts reflecting the Byzantine cultural sphere (Trilj, Brestovac). This issue is analysed in greater detail in Chapter 4.4.1 *Gombíky as representatives of ideological fusion*.

Gombíky with chased decoration likewise became a dating tool for foreign scholars, e.g. in connection with the analogical decoration of vessels from the ‘treasure’ from Nagyszentmiklós (Sănnicolau Mare, Romania). Mechthild Schulze-Dörrlamm used the concurrence of chased decoration as an argument for an earlier dating of the Romanian find.³

3 M. SZÓKE (1960, 76) was the first to point out the similarity of the decoration; Czech art historians soon joined the discussion (BENDA 1961; for an overview of literature on gombík re-licies, see KLANICA 1970A, 434–444). On the dating of the hoard, see SCHULZE-DÖRRLAMM 2010, 128–129.

2. The processed assemblage of gombíky and their basic typology

The assemblage of gombíky in the collections of the Czech Academy of Sciences, Institute of Archaeology in Brno, artefacts that came mainly from the Mikulčice-Kopčany agglomeration and partially also its hinterland,¹ were utilised for the detailed processing performed for this research. The processed assemblage of artefacts comes from the systematic excavations of the site, which has suffered only minor damage from modern encroachments. Mostly artefacts were discovered by the extensive field works in the second half of the 20th century. The possibility to compare the assumed socially distinct groups of inhabitants from the cemeteries in the different parts of the agglomeration and from its economic hinterland is also considered significant. It was possible to process in the most detail the gombíky coming from the acropolis and extra-mural settlement, where the vast majority of the discovered specimens from Mikulčice were found (55% from the acropolis, 30% from the extra-mural settlement). Gombíky from the peripheral zone of the agglomeration and from the economic hinterland were processed together under the term hinterland, as the research was started before the definition of the peripheral zone of the agglomeration was published. In addition, there is not a significant occurrence of gombíky² or any specific common trend in the analysed burial grounds from the peripheral zone.

It is also significant that the agglomeration with economic hinterland has produced the largest Great Moravian assemblage of gombíky totalling 438 of these artefacts.³ The core of the research is

represented by gombíky found in grave contexts,⁴ i.e. 389 artefacts from a total of 212 graves (Tab. 3), with the greatest attention being paid to sheet metal gombíky, a group of 288 artefacts of burial origin from the acropolis and extra-mural settlement.

The data was processed in Microsoft Excel. A separate logbook was created for artefacts from the Mikulčice-Valy stronghold (i.e. from the acropolis and extra-mural settlement), while another logbook was prepared for all locations from the periphery of the agglomeration and the hinterland of Mikulčice. Artefacts are distinguished by unique identifiers in the form of their inventory number. In connection with individual artefacts, data that can be characterised as find situations (church, grave, other grave goods, position in grave, pairing with another gombík, number of gombíky in the grave, etc.), anthropological data on individuals buried with gombíky (estimated age, sex and classification in the respective intervals) and a detailed description of the appearance and production technique of the artefact (construction type of the body and attachment system, the jewellery technique used and the detailed division, size, material, quality, etc.) were recorded. A total of 62 characteristics were recorded for gombíky from the acropolis and the extra-mural settlement (I had access to the majority of gombíky) and 20 characteristics for artefacts from the hinterland (most were unavailable). The data were processed in several ways; they were partly binary data (yes/no - e.g. the occurrence of a paired gombík), mostly it was qualitative/nominal data (divided into defined categories - e.g. burial site name, gombík shape specification, estimate of material composition, etc.), or quantitative/interval (number of gombíky in grave, etc.). The actual research was carried out by filtering the data through the search function of the spreadsheet,

1 The economic hinterland is not included under the term agglomeration in the latest publications (HLADÍK ET AL. 2022, 17). The whole designation of the studied Mikulčice site should be *Mikulčice-Kopčany agglomeration with economic hinterland*. Where the clear context allows, I refer to the site only as Mikulčice/Mikulčice agglomeration.

2 Four sites from the peripheral zone of the agglomeration were included in the analyses: Kopčany-Kačenáreň, Kopčany - Saint Margaret, Mikulčice-Trapíkov and Mikulčice-Virgásky. There were 4 gombíky in 3 graves from the cemeteries in the Kopčany part of the agglomeration.

3 However, in this context it is necessary to mention that some of the archaeological material from Mikulčice no longer physically exists as a result of the tragic fire at the Mikulčice depository in 2007. As such, research today depends entirely on preserved documentation. For gombíky, this means roughly 150 artefacts, with the majority being glass, iron and objects that were already fragmented upon their discovery.

4 I briefly note the totals of 49 settlement finds, which were included to the technological and typological analyses in the first part of the book: 17 glass, 28 sheet metal and one iron artefact (three without specifying the material). The largest number of sheet metal gombíky have chased plant ornament (9 gombíky), while others have geometric ornament (4 gombíky), ribbed and ring decoration (3 each), are without decoration (2 gombíky) and one gombík has bird motifs (the others could not be identified). At least two pairs of sheet metal gombíky apparently come from unidentified graves. The majority of gombíky found in a settlement context were simple forms, whereas a gold artefact with plant ornament (Inv. No. 1897/57) and the largest gombík from Mikulčice - a silver gombík with stylised bird motifs, a height of 52 mm (with loop) and a diameter of 44 mm, are rarities (detailed information in the catalogue part).

TAB. 3 | Overview of the analysed graves with gombíky from the Mikulčice-Kopčany agglomeration and its hinterland.

Area	Location	Number of graves ²	Number of graves with gombíky	Number of gombíky	% Graves with gombíky
Acropolis	Church 2	236	36	68	15%
Acropolis	Church 3 + 'Palace'	594	63	123	11%
Acropolis	Church 4	106	3	3	3%
Acropolis	Church 11	81	9	12	11%
Acropolis	Church 12	88	5	8	6%
Acropolis, total		1105	116	214	11%
Extra-mural settlement	Church 6	210	16	30	8%
Extra-mural settlement	Church 7	16	2	3	13%
Extra-mural settlement	Church 8	25	1	4	4%
Extra-mural settlement	Church 9	49	6	10	12%
Extra-mural settlement	Church 10	11	-	-	-
Extra-mural settlement	Kostelisko	455	29	50	6%
Extra-mural settlement	Klášteřísko	324	9	15	3%
Extra-mural settlement	Žabník	76	-	-	-
Extra-mural settlement, total		1166	63	112	5%
Hinterland	Josefov-Záhumenica	179	-	-	-
Hinterland (peripheral part of the agglomeration)	Kopčany-Kačenáreň (3 areas)	90	2	2	2%
Hinterland (peripheral part of the agglomeration)	Kopčany - Church of Saint Margaret	7	1	2	14%
Hinterland	Mikulčice-Panské	131	12	27	9%
Hinterland (peripheral part of the agglomeration)	Mikulčice-Trapíkov	6	-	-	-
Hinterland (peripheral part of the agglomeration)	Mikulčice-Virgásky	29	-	-	-
Hinterland	Mutěnice - Hrubé Kapansko	13	-	-	-
Hinterland	Nový Poddvorov	4	-	-	-
Hinterland	Prušánky-Podsedky I	325	7	13	2%
Hinterland	Prušánky-Podsedky II	298	6	8	2%
Hinterland	Skalica-Kopečnica	109	5	11	5%
Hinterland, total		1191	33	63	3%
Total		3462	212	389	6%

TAB. NOTE 2 Anthropological data of buried individuals from acropolis and extra-mural settlement are based on a revisited anthropological analysis by J. Brůžek and P. Velemínský et al. (partly published – see ZAZVONILOVÁ ET AL. 2020); for information about anthropological data of individuals from hinterland see Tab. 25; sources of archaeological data are available in Tab. note 46. Seventeen graves found NE of the 'palace' were also included in the analyses among the graves from church 3.

by combining the various characteristics assigned to the artefacts in accordance with the selected query (e.g. filter silver gombíky with a cordate meander from the cemeteries at the acropolis in the graves of children in the age category of 0–14 years, etc.). The results of filtering are contained in separate tables published in this book, where monitored characteristics and numbers of artefacts in various categories, or their average representation, are listed (long tables are available after the text part). The results of the research in the text are then formulated from these data.

2.1 GOMBÍK TYPOLOGY BASED ON PRODUCTION TECHNOLOGY

Typological classification is a classic method in the archaeological processing of finds with primary relative chronological potential; it was applied in the past to create typologies of the artistic treatment of the surface of gombíky. This work obviously involved the mixing and spreading of individual technical and technological parameters of the gombíky (i.e. of production and jewellery-making technologies, arrangement and decorative motifs

or formal characteristics). Vilém Hrubý established this system by describing specific groups of gombíky from the Staré Město - Na Valách site (HRUBÝ 1955, 206-214). Although this system was adopted and modified by other researchers,⁵ with the expansion of the source base, V. Hrubý's original intention of defining typological groups of finds from one specific burial ground (where the maximum specification of find groups of artefacts has its meaning) was lost. Over time, this typology without clearly defined general rules essentially became a formal division of all gombíky, albeit with limited possibilities for further research use. My belief that individual technical and technological parameters of artefacts have their own informative value led to the decision to study them separately in my work. The basic division of gombíky into three groups based on production technology is described here. The first two groups are composed of gombíky produced by melting glass and gombík-like artefacts created by casting metal. The third group contains gombíky made from sheet metal, which represent the bulk of the find inventory. These artefacts are processed particularly in Chapter 4.1 *Technical and technological parameters of sheet metal gombíky*.⁶

2.1.1 Glass gombíky

Glass gombíky are formed by a regularly spherical body made of vitreous material with an inserted iron (exceptionally copper) loop (Fig. 2: 1). To date, the largest assemblage of glass gombíky (from the cemetery in Dolní Věstonice - Na pískách) was processed by Šimon Ungerman as part of his newly published dissertation. Of the originally 83 excavated artefacts, 68 were available to the author for research. Š. Ungerman notes their flattened shape, which is the result of the production of the gombíky on a flat base. He also states that the vast majority of these artefacts are made from translucent glass, most commonly light green, deep green, blue and yellow to yellowish-green in colour. The lone glass gombík with a copper loop is also known from Dolní Věstonice; all of the others have iron loops. In terms of size, these are in the range of 1-1.7 cm (UNGERMAN 2023A, 238).

A similar situation also applies to Mikulčice and its hinterland, where a total of 63 glass gombíky are recorded. However, the majority of them were physically destroyed in the fire at the research centre in 2007 (17 of them have been reidentified since the blaze). Seventeen gombíky came from settlement features and layers, while the others were part of the



FIG. 2 | Glass gombíky. 1 - With a spherical body and metal loop; 2 - bound pendants.

1a - Mikulčice-Panské, grave 23, photo by M. Bárta;

1b - Mikulčice-Panské, grave 78, photo by M. Bárta;

2a - Staré Město - Na Valách, feature 51, after Kouřil ed. 2014, 421;

2b - Břeclav-Pohansko, grave 230, after Kouřil ed. 2014, 421.

furnishings of 31 graves. The inventory books do not always provide information on colour, but existing records describe the same find situation as in Dolní Věstonice - most often they are light green, but also blue, green, yellowish-green gombíky; in one case the colour was described as grey, in another isolated case as brown. A few less thoroughly measured gombíky also correspond in size to the finds from Dolní Věstonice (1-2 cm in diameter).

Glass gombíky were traditionally regarded as folk ornaments, which is related to their occurrence outside of elite graves.⁷ For this reason, this category was specially viewed in subsequent analyses in connection with status issues as comparable to sheet metal gombíky. The study of the chronological anchoring of glass gombíky remains open for now. They were originally placed in the late or final phase of the Great Moravian and post-Great Moravian period. Later, however, it was also possible to document graves with these artefacts, which, based on the vertical stratigraphy, apparently belong to the first half of the 9th century, and the glass gombíky therefore appear to be concurrent.⁸ Three specimens from Mikulčice and two from Prušánky underwent glass analysis (KLANICA 2006A, 84). Unfortunately, the exact ratio of the relevant components, which could help determine their provenance and dating,

5 Typologies are contained further in these works: DOSTÁL 1966, 60-65; KLANICA 1970A, 421-442; PAVLOVIČOVÁ 1996, 100-101; CHORVÁTOVÁ 2015, 111-121. A certain exception is the division of gombíky on the basis of material and jewellery-making techniques by Z. KLANICA (1970, 421-442).

6 For this reason, the description of sheet metal gombíky in the following typology is more concise than in the case of glass and cast gombíky.

7 UNGERMAN 2007, 133. In this context, glass gombíky are reportedly accompanied by finds of other rural ornaments - necklaces, as mentioned by H. CHORVÁTOVÁ (2015, 126).

8 For an overview of the chronology, see UNGERMAN 2007, 132-134. HANA CHORVÁTOVÁ (2015, 125-127) also addresses the chronology of glass gombíky.

was not published.⁹ Glass gombíky also appear sporadically in Lower Austria and western Hungary in graves from the 9th to early 10th century (FIEDLER 1992, 192–194; SZÓKE 1996, 98–100). However, based on an analysis of ancient Hungarian cemeteries, Károly Mesterházy states that glass gombíky are rare finds in this cultural context (MESTERHÁZY 2000, 212). The destruction of an early medieval glass furnace discovered at the Devínská Kobyla site (Slovakia) also contained a light green gombík, which, along with accompanying pottery, helped date the furnace to the 9th–early 10th century. The authors of the excavation of the glass furnace base their chronological conclusions on an analysis of the grave occurrence of glass gombíky, a type that disappeared from the grave context with the onset of the Bijelo Brdo horizon of burials (FARKAŠ, TURČAN, 1998, 33, 37). The dating of glass buttons has recently been studied in detail by Š. UNGERMAN (2023A, 238–242), who mainly on the basis of finds from the burial ground in Dolní Věstonice concludes that glass buttons also appeared in the 10th century (UNGERMAN 2023A, 240–242).

Glass spheres set in a metal binding with a loop for attachment (Fig. 2: 2) are highly specific types of glass ‘gombíky’. Two of these artefacts are known from Great Moravia – one comes from Břeclav-Pohansko, the other from the Staré Město – Na Valách cemetery. These artefacts are technologically similar to ‘bound pendants’, which are known mainly from Merovingian and Anglo-Saxon cemeteries from the middle of the 5th to the end of the 7th century, but also from other Germanic graves dating to the Migration Period, e.g. Langobardi (in a small number of cases also in Moravia, e.g. at the cemetery in Mušov-Roviny¹⁰). They appear here mostly in the graves of adult women, always with just one artefact in a grave, apparently originally hung from the belt. Genevra Kornbluth interpreted a crystal artefact as a gender symbol linked to burials of women at a child-bearing age.¹¹ In the context of Great Moravia, only the artefact from the cemetery at the first church from Pohansko comes from a grave. This was the burial of a child, with the other grave goods suggesting the deceased was a young boy. The pendant was found north of the skull.¹² The second artefact from Staré Město was discovered in a pit with an oval ground plan at the ‘Osada’ site (feature No. 51; HRUBÝ 1965, 40, OBR. 13: 8). Given the time shift as well as the

differences in material and construction of the western analogies, these two Great Moravian finds are apparently not imports or Merovingian antiques. As the loops of both Moravian finds are shaped the same as on gombíky, I believe they are a local variant freely inspired by more remote models, a hypothesis also supported by the fact that similarly shaped stone or glass artefacts are known from various periods and regions – the early medieval occurrence in Western Europe, for example, is directly connected to the popularity of spherical crystal amulets from the Roman Period (KORNBLUTH 2019, 125–133).

2.1.2 Cast ‘gombíky’

This category – gombíky cast in moulds – is represented only sporadically in Great Moravia.¹³ I put the term ‘gombík’ in quotes due to the different production technology, origin, chronology and apparently even the use and significance of these artefacts and also because of their predominant occurrence outside Great Moravia.¹⁴

Small, solid, cast copper buttons, often mushroom-shaped (*pilzförmig*), which served as actual fasteners for caftan-type clothing and come from Central Asia,¹⁵ rarely occur in Moravia.¹⁶ A larger number of finds come from 10th-century graves at cemeteries in southern Slovakia, which are related to contacts between local residents and the ancient Hungarian ethnic group, or these were ancient Hungarian burials (Fig. 3: 1).¹⁷ However, cast buttons are in general common on the clothing of nomadic ethnic groups and appear regularly at early medieval cemeteries in Pannonia (SZÓKE 1962; 1992, 91), in the Balkans (OŤA 2008, 122–123; VAŽAROVA 1976, 377; JELOVINA 1976, 113–114), in Ukraine (MAJKO 2007), Russia (IERUSALIMSKAJA 2012, 293–295, 349; GONČAROV, KADIEVA 2019, 12–42), and even in Turkey (HARRISON 1986, 262–264; WALDBAUM 1983, 126, 134–136, PL. 46, 50–51), as well as (albeit rarely) in northern Europe as evidence of the long-distance trade contacts of the Vikings (ARBMAN 1940, TAF. 93; GELJER 1938, 143, 150, TAF. 33; recently HEDENSTIERNA-JONSON 2012, 34–35).

Also linked to post-Great Moravian development and nomadic influences are finds of hollow

9 For more on the origin and dating of glass, see ROHANOVÁ 2020, 360–361.

10 Thank you dr. Zuzana Loskotová for information about this previously unpublished find.

11 KORNBLUTH 2015, 50, 54; 2019, 130–132. Paradoxically, the best-known is the crystal pendant from Childeric’s grave – it was allegedly lying by his hand and is therefore interpreted (secondarily used) as the spherical head of a sceptre (BÖHNER 1981, 453). It is clear in G. Kornbluth’s photograph that the crystal sphere bears traces of binding. Photograph available at: <https://www.kornbluthphoto.com/RockCrystal2.html>.

12 KALOUSEK 1971, 136–137. Grave 230 also contained a pair of copper gombíky with chased palmettes, spurs with buckles and strap fittings and two knives.

13 Finds of moulds for cast ‘gombíky’ are known e.g. from Bulgaria; see DONCHEVA 2015, 53, 251–256.

14 RÉKA ANDRÁSI (2015) published a typological overview, a draft chronology and a link to sex/gender, age and social stratification based on the Hajdú-Bihar and Rétköz counties (Hungary).

15 On central Asian clothing, see PECK 1992; a concise overview also appears in KRUPIČKOVÁ 2020, 295–308.

16 Only one cast mushroom-shaped button comes from a Great Moravia funeral context – the artefact from grave 188 at the cemetery in Rajhrad; STAŇA 2006, 63, OBR. 17: 188.

17 E.g. Čakajovce (35 artefacts): REJHOLCOVÁ 1995B, 76–77; Bešeňov (7 artefacts): NEVIZÁNSKY 1979, 393; Bučany (1 artefact): HANULIAK 1993, 83–112; Mužla-Čenkov (1 artefact): HANULIAK, KUZMA 2015, 155; ancient Hungarian cemetery Levice – Géňa (1 artefact): NEVIZÁNSKY 2006, 289; etc.

cast pear-shaped pendants, decorated and undecorated, which, again, are found (among other places) at Slavic cemeteries.¹⁸ These ‘gombíky’ are regularly composed of two parts, but unlike Great Moravian sheet metal artefacts, they are divided vertically down their entire length. Graves often contain only half of the artefact. Whole and half artefacts apparently served as necklaces pendants (Fig. 3: 2).¹⁹

Another cast variant – lead ‘gombíky’ with a high neck (Fig. 3: 3) – are typically linked to the end of Great Moravian development.²⁰ These are known directly from Great Moravian centres – they have been found by church 8 in Mikulčice, at Na Valách in Staré Město, in the north-eastern suburb of Břeclav-Pohansko and allegedly in larger numbers at the cemetery in Dolní Věstonice – Na pískách (KOUŘIL 2008, 71–73; HRUBÝ 1955, 262, 430; DOSTÁL 1970, 122–124; UNGERMAN 2023, 252–255). Pavel Kouřil dated the Mikulčice find to the end of the 9th century and to the 10th century and considers it a ‘specific local product made together with other lead artefacts and simple ornaments in the period of the political, economic and cultural decline of the formerly powerful empire in one (?) of the declining jewellery workshops (...)’ (KOUŘIL 2008, 71–73; on the horizon of lead finds, see e.g. MĚŘÍNSKÝ 1985, 35–37 and MĚŘÍNSKÝ 1988, 132). The results of Š. Ungerman’s analysis (UNGERMAN 2023A, 252–255) are also consistent with a dating to the transition from the Great Moravian period to the post-Great Moravian period.

The iron gombíky listed several times in the Mikulčice inventory books but which were lost for good in the fire at the Mikulčice depository in 2007 remain unknown. Simple drawing documentation captures spherical artefacts covered with corrosion products that complicate identification, and confusion with rattles cannot be ruled out.²¹ Given that the appearance of the artefacts cannot be verified and that the number of objects is statistically negligible, I leave them classified in the category of gombíky for the purposes of this work (in agreement with workers

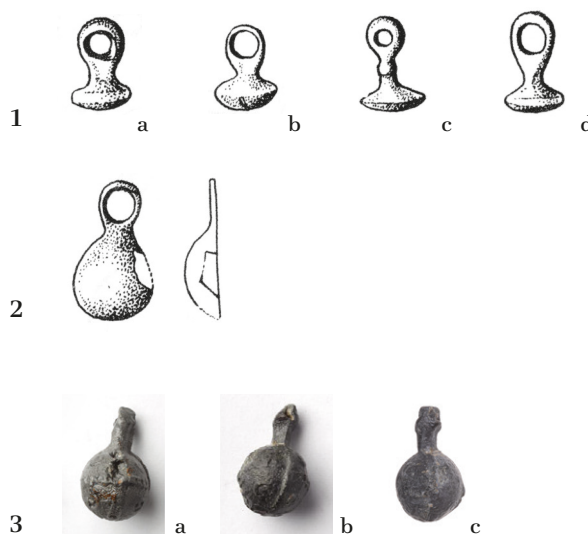


FIG. 3 | Cast ‘gombíky’. 1 – Solid cast ‘mushroom-shaped’; 2 – vertically halved ‘pear-shaped’; 3 – lead with tall neck. 1 – Čakajovce (SK), grave 123, after Rejholcová 1995a, tab. XXVIII; 2 – Čakajovce (SK), grave 123, after Rejholcová 1995a, tab. XXVIII; 3a – Staré Město – Na Valách, grave 209/AZ, photo by J. Foltýn; 3b – Dolní Věstonice, grave 535/55, photo by J. Foltýn; 3c – Mikulčice, church 8, grave 10/VIII, photo by M. Fort.

who recorded the artefacts and had them physically available). Outside the centre of Great Moravia, iron gombíky are published from Dolné Lefantovce north of Nitra, where they were also discovered in a corroded textile bundle by the knees of the non-adult individual in grave 12. Mária Rejholcová interprets them as a functional part of clothing, albeit somewhat atypically in connection with the fastening of trousers.²²

2.1.3 Sheet metal gombíky

Artefacts made by hammering sheet metal into a hemispherical die and the subsequent soldering of two halves into a single (hollow) whole form a dominant group of Great Moravian gombíky that can be considered the heart of the research.²³ Their body is most frequently composed of two horizontally soldered hemispheres (Fig. 4: 1) or are from one piece of sheet metal covered with a collar (Fig. 4: 2), or a combination of both techniques (Fig. 4: 3). The attachment system is designed either as a loop attached

18 Only settlement finds are published from Moravia, from the sites of Mikulčice, Dolní Věstonice – Vysoká zahrada, Břeclav – Na včelách (MĚŘÍNSKÝ 1986, OBR. 28: 1, 30: 1–3; DRESLER 2016, OBR. 139). The lone pear-shaped artefact with engraved decoration cast in a single piece comes from Čakajovce, Slovakia (REJHOLCOVÁ 1995B, 77).

19 Čakajovce, REJHOLCOVÁ 1995B, 77; HANULIAK, REJHOLCOVÁ 1999, 76; Nitra – Horné Krškany: HANULIAK, CHROPOVSKÝ 2019B, 142.

20 Sheet metal gombíky with a high and often twisted loop are known from Pannonia, while an artefact from a gilded copper alloy with a perforated shell decorated with palmettes held at the museum in Debrecen comes from an unknown site (MESTERHÁZY 2000, 212, 215). Two golden sheet metal gombíky with a similarly high loop come from the cemetery in Brestovac (BÜHLER 2014, 24–25). In contrast, Š. Ungerman dates unleaded gombík finds with a twisted loop to the beginning of Moravian inhumation burials (UNGERMAN 2005, 715–716).

21 For example, on the basis of a comparison of records in inventory books and the actual finds from Dolní Věstonice – Na pískách, Š. Ungerman rules out the possibility of the occurrence of iron gombíky and interprets them all as rattles (UNGERMAN 2023A, 273, NOTE 369).

22 REJHOLCOVÁ 1992, 266–267; gombíky were identified by means of an X-ray image, but they are more likely rattles – for an interpretation of iron rattles found near the knees, see UNGERMAN 2019, 329–330.

23 On production technology, see BARČÁKOVÁ 2014, 311–418; OTTENWELTER ET AL. 2014, 163–288; 2020.

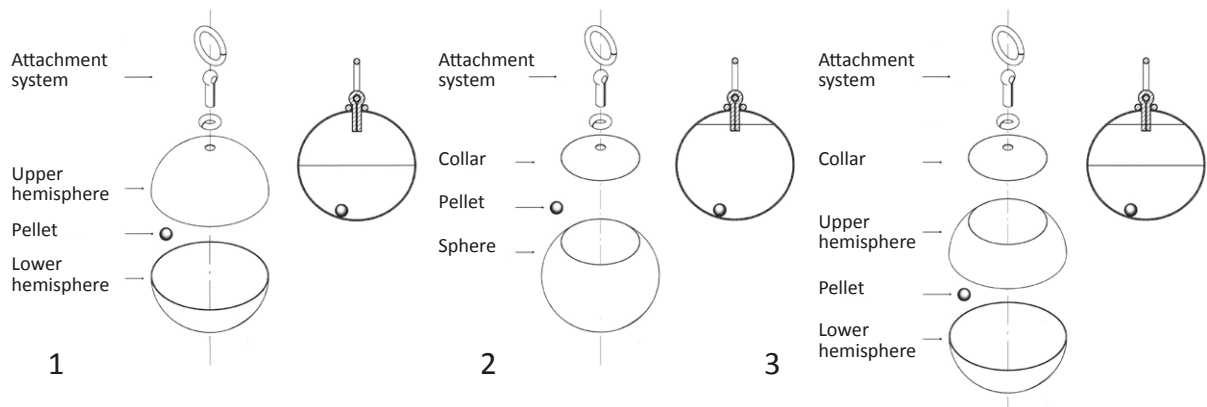


FIG. 4 | Shell construction of sheet metal gombíky. 1 - Body from two horizontally soldered hemispheres; 2 - body from one piece of sheet metal with collar; 3 - combined body from two horizontally soldered hemispheres with collar. After Ottenwelter et al. 2020; graphic by Z. Pavková.

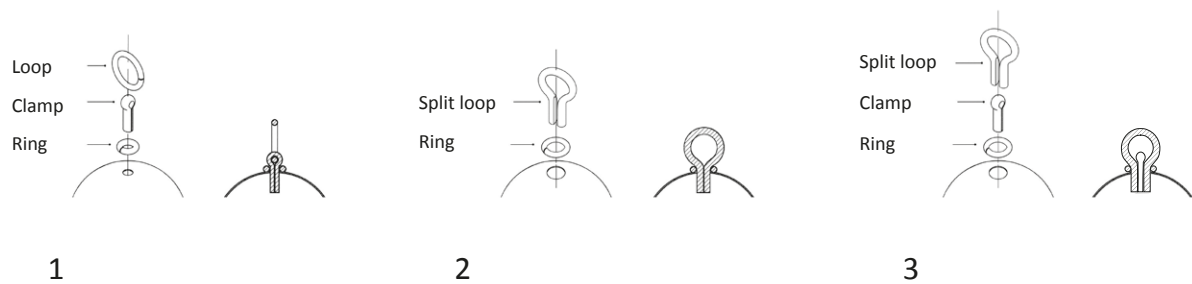


FIG. 5 | Construction of gombík attachment system. 1 - Circular loop secured by clamp with ring; 2 - split loop without clamp, with ring; 3 - combination of split loop with clamp and ring. After Ottenwelter et al. 2020; graphic by Z. Pavková.

with a clamp and secured with a ring (Fig. 5: 1), as a split loop without a clamp (Fig. 5: 2), or as a combination of these two variants (Fig. 5: 3).

Small artefacts in the shape of a pyramid with a long loop (Fig. 6: 1) are a highly specific type of sheet metal 'gombík' known only in the context of Great Moravia from grave 286/49 from Staré Město - Na Valách (HRUBÝ 1955, 262, 456). Their finds outside of Great Moravia are also rare. Although they are formally reminiscent of mushroom-shaped buttons of an Asian origin, few examples are available for a more precise interpretation. The potential of their transformation from/into polyhedral variants, indicated by the parallel occurrence of both variants at Romanian sites (Fig. 6; FIEDLER 1992, 192-194), is noteworthy.

The basic typology of sheet metal gombíky is tied to the applied jewellery-making techniques,²⁴ which divide them into a group of artefacts with chased decoration and soldered decoration (two techniques not typically combined on gombíky). A detailed analysis of both groups of sheet metal

gombíky is presented in Chapter 4.1 *Technical and technological parameters of sheet metal gombíky*.

In order to establish the method of further processing of sheet metal gombíky, in the following chapter I first created a theoretical model based on published theses linked to the research of non-Great Moravian early medieval cemeteries, i.e. an interpretive model of the purpose of archaeological artefacts in living culture.

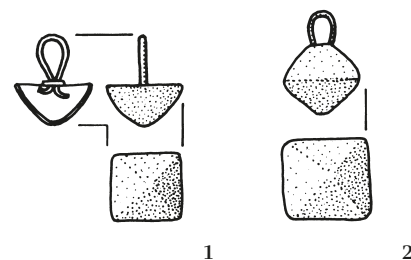


FIG. 6 | Sheet metal gombíky in the shape of a pyramid with an elongated loop.

After Fiedler 1992, 193, Abb. 43: 4, 5.

²⁴ On jewellery-making techniques in detail, see TÄUBL 1976.

3. Theoretical models and their application to Great Moravian gombíky

As stated in the introduction, gombíky disappear from the living culture in Central Europe in the 10th century at the latest, and therefore an interpretation of these artefacts requires a reconstruction of their use by Great Moravian society. The functional dynamics of early medieval societies are described on a general level by numerous theoretical models. Contemporary theoretically-oriented archaeologists work with a broad platform of Euro-American research inspired by cultural anthropology that builds upon the post-processual paradigm. For the European Early Middle Ages, the British and German theoretical schools are particularly prominent in this direction, selected models of which I present below. Separately, I single out the interpretation structure of archaeological facts of Evžen Neustupný, published as part of his own paradigm of the theory of archaeology, which I use for my final interpretation of gombíky.

3.1 THEORETICAL RESEARCH OF EARLY MEDIEVAL CEMETERIES

The vast majority of gombíky are found at Great Moravian cemeteries in the grave inventories of the deceased. The find contexts of the gombíky therefore lead us to research of the funeral rite and to the former users of gombíky. For several decades, research in Western Europe has addressed the question of how to look at the contents of graves scientifically; since the 1980s, in connection with the emergence of post-processualism, there has been a trend towards the symbolic level of burials and the need for an individual approach to sources has been promoted. A related issue is the effort to clearly define the boundary of the objectivity of burial finds – what can be removed from ritual symbolism and how to approach different sources of data.¹

¹ For the Middle European Early Middle Ages, the German theoretical school at the University of Freiburg with seminal works by Heiko STEUER (1982) and his student Sebastian BRATHER (2004; 2007; 2008) and the University of Tübingen, where Heinrich HÄRKE worked (E.G. 1997A; 1997B, 2004; 2014), are prominent research hotbeds. The German school drew on the Anglo-Saxon dialogue between archeology and anthropology (HÄRKE 1989). A number of theoretical studies originated in Great Britain, represented by the team at the University of York, mainly the work of Edward JAMES (E.G. 1977) and his disciple Guy HALSALL (E.G. 1995; 1996; 2009), in which the development of theoretical research in Western Europe in the 20th century moving from positivism to post-processualism is clearly presented.

3.1.1 Intentional and functional parameters of grave goods (Heinrich Härke)

Published in 1993, Heinrich Härke's theory of intentional and functional data (HÄRKE 1993, 141–146) is based on the results of research by the British anthropologist Edmund Ronald Leach, the German ethnologist Wilhelm Emil Mühlmann and the British archaeologist Ian Hodder. Härke applies his theory to the conditions of burial archaeology (especially) of the Early Middle Ages. The theoretical foundation is based on the statement that *'the method of burial, the construction of the grave and, above all, also the grave goods (...) are clearly part of the burial ritual and are therefore intentional data: they reflect the thinking of the society performing the funeral, and through this its social opinion, but not the real social status of the buried individual.'* And further: *'to illuminate reality, e.g. the social role of the buried individual in the life of society, other data are needed that are functional or at least unintentional'* (HÄRKE 1993, 142). In other words, intentional data are connected to thought, functional data to behaviour. Key functional data can and must be sought in burial rite research in physical anthropological data relative to the buried individual and in technical data relative to grave goods. A buried individual can be studied on the basis of a determination of demographic data, metric data and from the perspective of paleopathology. This involves a determination of sex, age, body structure, epigenetic features, a definition of bioarchaeological properties (e.g. isotope content in bones) and the identification of traces of diseases and injuries. Although grave goods are chosen by the survivors, their technical characteristics can (with a certain amount of caution) be considered functional parameters of the artefacts placed in the grave. These include characteristics related to their production and use; e.g. size, material composition, construction, sophistication, production method and its complexity and traces of wear, damage and repairs (HÄRKE 1993, 143). Härke used his theoretical research in the practical processing of the social structure of the Anglo-Saxons based on an analysis of the occurrence and character of weapons and equipment in graves based on the age of the deceased (HÄRKE 1997A, 125–170; 2004, 197–207).

Similarly, Sebastian Brather depicted a Merovingian burial as a performance in which the deceased is the main actor directed by the survivors with an audience made up of the local society (Fig. 7;

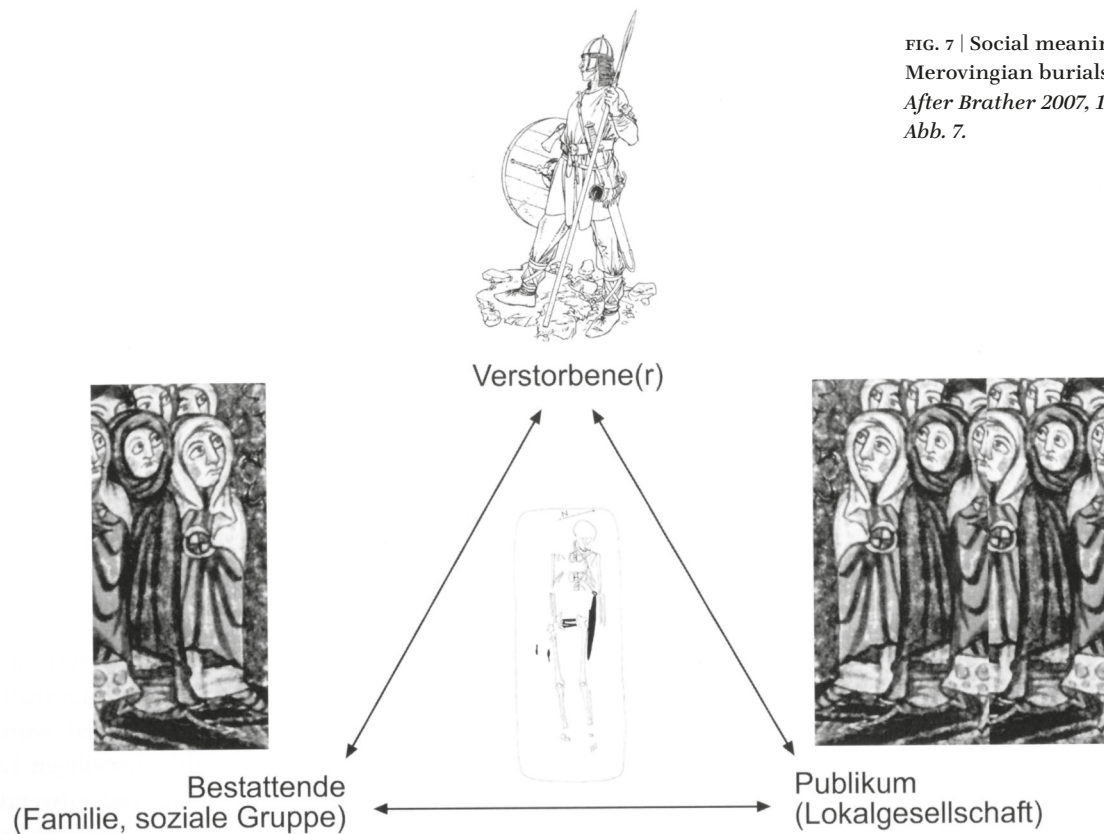


FIG. 7 | Social meaning of Merovingian burials.
After Brather 2007, 197,
Abb. 7.

BRATHER 2008, 254–257). The form of the identity of the deceased (*Gestorbene(r)*) was thus influenced by the social needs of the survivors (*Bestattende*) and the closer and wider community (*Lokalgesellschaft*), and the remains of the funeral are an idealised form of reality adapted to the needs of the survivors. Sebastian Brather also defined the term ‘identities’ (*Identitäten*), which are both inclusive and exclusive. One and the same person is part of a group of multiple identities and is, conversely, excluded from others. An example can be the concurrent affiliation to family, sex or gender, age, and also social group. As identities influence the nature and scope of grave goods, it is necessary to analyse each identifiable group separately (BRATHER 2004, 370; 2007, 196–202; 2008, 259–273). This approach was also practically applied to grave units by other researchers processing Viking and Avar cemeteries (HALSALL 1996; KOKKOTIDIS 1999; DISTELBERGER 2004; STAECKER 2009).

I also integrated this view of the grave unit into my work. In agreement with Härke, I refer to the objectively assessable aspects of the burial rite as functional data. It is this functional data in connection with gombiky that I preferentially follow in order to arrive at my own image of a living society with the greatest possible minimisation of ritual distortion. Among these functional data I include the technical and technological data of the gombiky (e.g. material, size, body construction and attachment system, jewellery technology, etc.) and the basic demographic data of the individuals buried with the gombiky (i.e. sex/

gender and age-at-death). Functional characteristics are contrasted with intentional data, into which the funeral ritual itself is projected and whose form was essentially determined by the survivors. These include the connection of gombiky to other grave goods, the location and number of gombiky in the grave, and the location of the grave with gombiky within the cemetery. I pay attention to the intentional characteristics of the find units only to supplement the interpretation of the gombiky (for example, I record the number of gombiky and their location in graves as part of the interpretation of the practical function).

3.1.2 Diffusion of ideas and their mapping in time and space (Sebastian Brather)

Human society is dynamic, and the division of human history into simplified developmental stages can be somewhat misleading. The temporal and spatial boundaries of human communities were in fact constantly changing, a fact that must also be kept in mind when interpreting their archaeological cultural expressions. As such, if we talk about Great Moravia, the approximate temporal and spatial framework in which we are moving is clear to us. When attempting an interpretation, however, it is necessary to bear in mind more subtle and continuous social changes, both internal (regional) and external (supraregional). S. Brather called this dynamic the principle of the transfer of ideas (*Ideen*) through

communication and distribution (*Kommunikation und Distribution*) (BRATHER 2004, 390–412; 2007, 185–206). According to Brather, distribution and communication led to the temporal and spatial dispersion of trends and ideas across space and time, and these changes can be captured through comparisons of material culture. From the perspective of archaeology, we can thus follow the threads of this transmission of ideas, which are manifested as local stylistic variants (*Stilvarianten*). The issue of the transmission of ideas is demonstrated by S. Brather using the example of ‘Thuringian’ fibulae, considered in southern Germany to be evidence of Thuringian migration. However, based on a comparison of the chronology, it was determined that the appearance of fibulae in central and southern Germany is concurrent and is therefore probably evidence of distribution and supraregional fashion (BRATHER 2004, 404–406; 2007, 188–190). In this context, S. Brather considers complex stylistic typologies to be irrelevant; these suggest that ‘the more diffuse the extension (of the artefact), the more detailed the typological breakdown’ (BRATHER 2007, 189). The fundamental question is actually the conditionality of the clothing components by the overall fashion and clothing cut, or the conscious acceptance of a possible discrepancy in the spread of the artefact in the living culture and the custom (or method) of its deposition in the grave (*Regionalspezifische Kleidung, Situationsspezifische Kleidung*) (BRATHER 2007, 186–190). S. Brather also developed a model of the continuity of historical clothing and its transformations in terms of time, region, quality, meaning and symbolism in relation to the processes occurring within the former living culture (Fig. 8; BRATHER 2004, 402).

Šimon Ungerman’s research in the Great Moravian environment is built on a similar foundation. By comparing specific production details,

Š. Ungerman traces the spread of construction types of four-bead earrings in a wide geographical area from the southeast to the north of Europe (UNGERMAN 2020C, 273–277; 2020D, 278–280; 2020E, 281–286) and also convincingly demonstrates the development of supraregional fashion in the Slavic environment of the 9th century using the example of other types of earrings (UNGERMAN 2021).

In connection with this theory, I also include localisation and chronology as important parameters in my research. First, I follow a broader supraregional framework in which I classify the finds of sheet metal hollow spherical clothes fasteners and ornaments from a wide range of Europe to Central Asia and their time limits. After that, I focus specifically on the Central European region and the local occurrence of gombíky, which I conclude with a description of Great Moravian cemeteries with gombíky and their relative chronology in the 9th to the first half of the 10th century.

3.1.3 Burial as a form of social performance (Guy Halsall)

Based mainly on analyses of 6th–7th-century graves from Lorraine, Guy Halsall introduced a theory that the greater the social importance of the deceased (and the disruption of social relations by his death), the more the care that was taken to stabilise these relations was reflected in grave goods. Halsall calls this phenomenon death-induced social stress (*tension within society*). Thus, the form of the burial ritual reflects the degree of tension that an individual’s death caused in the surviving society, and the importance of the deceased is reflected in the extent to which their burial is of a public nature. A funeral is both an opportunity for the surviving family to

FIG. 8 | Interpretative testimonial value of clothing and its components. After Brather 2004, 402, Abb. 12.

Merkmale	Identifikationsmöglichkeiten	kulturelle Hintergründe
Zeitstil (chronologische Unterschiede und Veränderungen)	Modeempfinden	Mode, Zeitstil
Regionalismen (aufgrund von Merkmals-Kartierungen)	regionale Identität	Bistümer, Herzogtümer, Herrschaft, Kommunikation
Qualität (Material- und Herstellungs-Unterschiede)	soziale Identität	Gesellschaftsstruktur, soziale Hierarchien
Altersspezifika (aufgrund anthropologischer Untersuchungen)	Altersgruppen-Identität	Altersgruppen, Verwandtschaft
Geschlechtsspezifika (aufgrund anthropologischer Untersuchungen)	Gender-Identität	Geschlechterrollen, Familienstruktur
ideelle Besonderheiten (weitere Gruppenspezifika)	ideeller Bezug (religiöse Identität, Identifizierung mit bestimmten Heiligen, rein ästhetisches Empfinden)	ideelles Bezugssystem (z. B. weltliche und geistliche Kleidung)

realign themselves and to renew relationships with other families and individuals. In this sense, grave goods are deliberately chosen intense social testimony that uses a precisely defined range of objects to idealise the social identity of the deceased. The use of a limited range of artefacts expresses a fundamental aspect of ritual 'language', i.e. repetition. The repeated use of specific grave goods in association with specific groups of people serves to defuse tension; it overlays circumstances that are potentially critical, threatening, and unfamiliar with the known and 'safe' (HALSALL 2009, 207–208). The grave itself is then a combination of semiotic variables designed to convey information to an audience that can read the play of symbols and grasp the message. Rich grave goods can be interpreted as an expression of social instability, especially in cases where the maintenance of power is threatened in the context of generational change (HALSALL 2009, 175–176).

I used these considerations when interpreting chronologically conditioned changes in the occurrence of gombíky in connection with the sex/gender and age of the deceased. I try to demonstrate transformations within the whole of Great Moravian society based on the disappearance of gombíky from the grave goods of adults.

3.1.4 Description of the spread of fashion trends (Šimon Ungerman)

In his mainly chronological-typological works on Great Moravian jewellery and clothing components, Šimon Ungerman applies a long-term and systematic 'non-evolutionary' method of dispersing trends through early medieval society (UNGERMAN 2005, 716; for the application of the method, see 2020A, 51–57; 2020E, 281–285; 2021, 116–121). This is based on the fact that in the objects of fine metalwork and crafts, it is not possible to look for a line of development in the Early Middle Ages from products with lower craftsmanship to perfect specimens.² On the contrary, the drivers of fashion trends should be considered elites who had supraregional contacts, access to precious metals and the most skilled craftsmen. As part of their diplomatic and trade relations, they thus had access to exclusive goods, which then became models inspiring imitation. Elite products therefore stood at the beginning of development and production, while at the end we find simplified variants of serial unified products for broader social classes.³

Another important part of diplomatic relations in the Early Middle Ages was the gift-giving system,

which served as support for obtaining or maintaining (political) loyalty. At the same time, it could be used to transmit new trends between elites. The functioning of the gift-giving economy⁴ in conditions that could correspond to Great Moravia can be demonstrated by the example of the production of exclusive textiles in Birka. Textile production is described here by Eva B. Andersson as a symbiosis of the import of raw materials and the simultaneous recruitment of extremely skilled craftsmen as part of the trade-military expeditions of Viking chieftains abroad. Craftsmen-specialists then produced exclusive goods qualitatively superior to ordinary production. These goods were intended only for the needs of the chief, who used the products himself, but also distributed them as exclusive gifts (ANDERSSON 2008, 81–83).

These principles became the basis of the theoretical modelling of the chronological development line of gombíky. At the beginning of the development, I assume the appearance of an exclusive original (import?),⁵ which was subsequently imitated at multiple qualitative levels.⁶ The entire mechanism could be carried out, e.g. through the binding gift-giving strategy of the Great Moravian elites, and the gombíky could thus fulfil the role of a status symbol, i.e. an attribute of membership in a power/interest social group. In order to verify the model of the spread of gombíky over time from exclusive specimens to imitations, I also see a comparison with the classic method of vertical stratigraphy as beneficial.

3.1.5 Clothing is more than just textile (Sebastian Brather)

Gombíky – regardless of the interpretation of their function – were part of the clothing culture; in addition to functional (fastening) and decorative parts of textiles, jewellery, shoes, and hair and beard grooming must also be assumed (BRATHER 2007, 85). All of these facts are part of the overall image of clothing, the surviving parts of which can provide information about non-preserved parts. Providing the best analogy to gombíky in Western Europe are Merovingian fibulae, which are also thought to have functioned as decorative clothing fasteners and are preserved in many grave inventories. Even among fibulae we do not encounter typological unity and identical placement in graves. Differences in material, number, size and find circumstances in the grave tend to be linked to changes in the function and social meaning of fibulae over time. The enlargement of fibulae and their appearance in the area below the waist is often interpreted as the abandonment

2 The issue of 'evolution' and 'imitation' of jewellery was summarised in UNGERMAN 2023A, 77.

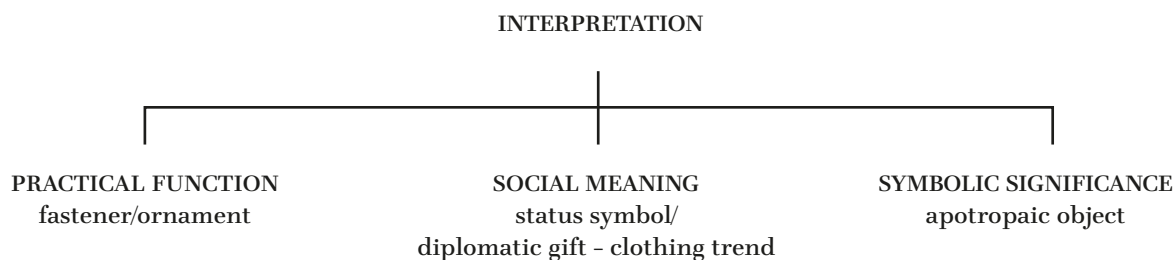
3 This is not a parallel to absolute dating. This means that some imitations may be older than typologically different designs. This corresponds, for example, to Š. Ungerman's findings on the dating of uniform gombíky with soldered rings in the earlier burial horizon in Dolní Věstonice – Na Pískách (UNGERMAN 2007, 135).

4 For more on redistribution in Great Moravia, e.g. HLAVICA, PROCHÁZKA 2020, 76–78; theoretical model for Great Moravian gombíky in KRUPÍČKOVÁ ET AL. 2023, 96–97.

5 On Byzantine imports in Bohemia and Moravia, e.g. PROFANTOVÁ 2008, 73–121.

6 Demonstrated using earrings by Š. UNGERMAN (2021, ESP. 34–35, 116–121).

TAB. 4 | Interpretation of gombíky according to the model of E. Neustupný.



of their practical function as a clothing fastener. As such, fibulae continued to fulfil the role of a (status?) symbol as an ostentatious accent on the fashionable clothing of the elite, but no longer actually fastened the clothing (BRATHER 2004, 393-394). The reason for the change in the use of fibulae may have been a change in clothing style - a transition from peploi to tunics is considered for the Merovingian period (MARTIN 1995, 42-47).

To a great extent, gombíky copy the image of Merovingian fibulae. Although we do not find similar variability in their placement in graves, their material, size and numerical changes are close to fibulae. I will address the possibility of connecting this variability to gradual changes in the practical function and social meaning of gombíky in the analytical part of the work.

3.2 INTERPRETIVE POSSIBILITIES OF GOMBÍKY BASED ON ARCHAEOLOGICAL THEORY (EVŽEN NEUSTUPNÝ)

Gombíky do not appear in contemporary living culture; we do not know them from iconography,⁷ nor do they appear in written sources. Their interpretation is therefore only possible on the basis of archaeological sources and the search for analogies. The application of an interpretive model appears to be a welcome aid in processing the large amount of data linked to the actual artefacts and the overall find context.

Evžen Neustupný addressed the interpretation of archaeological facts in his theory of archaeology in which he characterises the purpose of artefacts in living culture as a symbiosis of practical function, social meaning, and symbolic significance (NEUSTUPNÝ 1986, 543; 1993, 157-159; 2010, 83-92). It is important to realise that these three levels of interpretation are simultaneously linked to one type of fact and are not exclusive. For example, the practical function of an artefact does not remove it from the social and symbolic levels (Tab. 4). The following is an attempt to adapt the theoretical model to gombíky. Function represents the way in which the facts of a given category

are typically used, i.e. the practical tasks that these facts are intended to perform. In the case of gombíky, we can detect their function in the way they are applied to clothing or integrated into fashion accessories (necklaces). As such, they are interpreted as clothing fasteners, appliques and/or pendants. Meaning is then connected to the social environment in which the categories of living culture are used, i.e. meaning reflects people's relationships with other people. For gombíky, we can connect their level of meaning with the status function, linked to the elite and its power strategies. Significance, finally, is the spiritual thought environment of the categories; it reflects people's relationship to their own consciousness. I have searched for an understanding of this dimension of gombíky based on archaeological finds in their visual and sound symbolism. All three levels of interpretation not only overlap, they also change over time. These are essential arguments which, if accepted, can help us understand the apparent interpretative elusiveness of gombíky while also drawing us into the dynamics of a once living society. A certain disadvantage of the schematic approach is the possible distortion of the results caused by the application of an artificial structure to the archaeological finds, but this disadvantage is outweighed, in my opinion, by the possibility of a clear 'sorting' of the data and a more precise specification of questions.

3.3 INITIAL HYPOTHESIS AND PURPOSE OF GREAT MORAVIAN GOMBÍKY IN LIVING CULTURE

The theoretical interpretive model of the gombíky is based both on the findings of archaeological research to date and on the aforementioned theoretical models linked to the funerary archaeology of the Merovingian environment. To clarify the interpretation, I used E. Neustupný's interpretive model of archaeological facts. The fundamental questions that the present work attempts to answer therefore relate to the interpretation of gombíky in accordance with their purpose in living culture - to answer questions about their practical function, social meaning and symbolic significance.

⁷ Omitting the late (11th-century) and enigmatic sculpture from Saint Mary's Church in Biskupijka.

The principles on which the work is built can be summarised in three basic points:

1. It is essential to observe the functional parameters of the burial, which are not related to the burial ritual and can be found in the technical and technological characteristics of the artefacts, anthropological data on the buried individual, as well as in the spatial and chronological framework of the burial site; application in the presented work: I deliberately compare these data with each other and with intentional data and observe significant clusters of data or, on the contrary, their absence.
2. The stylistic variants of the artefacts are related to the supraregional communication and distribution of ideas, the bearers of which were the period elite, and it was from them that the impulses that were further imitated came; application in the presented work: I defined the following chronology of the appearance of gombíky: 1) import of models; 2) elite artefact of extraordinary quality; 3) average imitation; 4) mass-produced artefact; however, this is not an absolute dating, i.e. some imitations may be older than typologically distinct models.
3. The purpose of the artefacts has changed in living culture, but all of their aspects – practical function, social meaning and symbolic significance – remain present and go hand in hand; what changes is the ‘weight’ placed on these aspects by their users; application in the presented work: the interpretation of the gombíky may not be unambiguous, but their chronological and spatial variability must be observed.

As such, on a practical level, I assume that the gombíky can be interpreted by an analysis based on a conscious separation, but also an appropriate comparison of burial parameters related to the once living culture (functional data) with its ritual level (intentional data). I consider the analysis of the technical data of gombíky and their processing technology to be the foundation, as these reflect craftsmanship, access to precious metals and the limits of their functional use. From the technical side, I was able to process the characteristics of the production material, dimensions, shape, the presence of objects inside the gombíky and the detection of textile residues on their surface. From the technological parameters, I will analyse the construction of the shell, the construction of the attachment mechanism and the jewellery-making technique used – including the description of decorative motifs and patterns. For a successful interpretation of the gombíky, I also added to the processing data whose functionality is debatable. These data are represented in the work by analysing the number of gombíky and their location within the grave, as well as by analysing the co-occurrence of gombíky with beads within a single grave unit. While the form of burial clothing was determined by the survivors and this form was subject

to ritual and social customs, the remains of clothing from Great Moravian graves represent the only opportunity to get an impression of the period clothing. Moreover, the expediency of using these data was demonstrated during the research of Merovingian cemeteries.⁸ The functionality of the context remains an important criterion – this time we are talking about the ‘functional position’ of the object in the grave. For gombíky, this means that they are found in the grave where we expect them to have been commonly applied to clothing in the period.⁹

Furthermore, I compared the knowledge related to the actual artefacts with the anthropological estimate of the age-at-death and sex/gender of the individuals buried with the gombíky in accordance with the assumption that the use of the artefacts may differ for individual human identities and thus testify to the more complex mechanisms of the purpose of gombíky and the changes in this purpose.

In line with the belief about the internal dynamics of historical societies, including Great Moravia, the spatial and temporal variability of the purpose of the gombíky appears to be key. Therefore, I also included in the research an extensive analysis of the spatial and temporal framework of the occurrence of gombíky and gombík-like artefacts, focused in general on the broad supraregional area of Central, Southeastern and Eastern Europe and culturally connected areas of Asia, with the aim of tracking the transfer of ideas leading to the creation of gombíky in our territory. I then focused in greater detail on the Central European area with an emphasis on the occurrence of gombíky in Great Moravian territory itself within the spatial framework of today’s Moravia, where it was possible to observe the nuances of an already consolidated type of artefact.

If there were changes in the purpose of gombíky in Great Moravian culture, it appears as a lack of a traditional search for a single answer to issues of their interpretation. The approach seeking a single answer from the essence of the matter leads to its exclusivity and the exclusion of alternatives, which is ultimately misleading and cannot affect the former reality of a living culture. I therefore see the bulk of my research in defining the probable development of the interpretation of gombíky in terms of practical function, social meaning and symbolic significance. The resulting question is therefore the formulation of changes in the purpose of gombíky during the 9th and the first half of the 10th century.

The theoretical input model of the development of gombíky can therefore be formulated as an expectation of the establishment of gombíky in Great Moravia through a clear impulse in the form of the

8 See the change in the position of fibulae in Merovingian graves in Chapter 3.1.5. *Clothing is more than just textile* (Sebastian Brather).

9 There are exceptions when gombíky were apparently found in the grave in a non-functional (intentional/ritual) position – e.g. grave 505 at church 3 in Mikulčice (see also Chapter 4.2.2 *The position of gombíky in graves*).

import of exclusive sheet metal spherical jewellery intended for the highest elites. This jewellery gradually spread among the wider social elite. Assimilation by the broader elite should be characterised by increasingly high quality, the use of precious metal, and the standardisation of occurrence (including number and location in the grave) in certain social groups. Local production in several jewellery workshops is likely. At this time, we can also expect the emergence of local stylistic variants manifested in the expansion of the typological scale and the implementation of new technologies. The question is the transformation of the practical function of artefacts,

where we can expect the abandonment of their use to fasten clothing and the strengthening of the social meaning of gombíky, and perhaps also their symbolic significance. At this time, the gombíky could also become objects of the gifting strategy of the elites from the Great Moravian centres and spread to the local centres of Great Moravia as well as outside the Great Moravian region itself. The final phase in the development of gombíky would be the creation of unified and less technologically demanding variants, which would be manifested as a fashion wave even among the broader population. This theoretical model will be verified in the following analytical part of the work.

4. Analysis of gombíky

The creation of a theoretical model is followed by the analytical part of the work, which can be defined as four interconnected blocks. In the first block I analyse the actual artefacts – sheet metal gombíky from acropolis and extra-mural settlement – in terms of their technical and technological parameters (to this analyses were included also the settlement finds). In the second block I introduce the context of gombíky find situation in the grave, again based predominantly on the graves from the acropolis and extra-mural settlement. The third block compares data from the artefact analysis with physical anthropology data linked to the individuals buried with the gombíky. This third block is related to the grave finds from acropolis and extra-mural settlement of the Mikulčice-Kopčany agglomeration and also from its hinterland.

The final block is devoted to the localisation of cemeteries and chronological aspects of the distribution of gombíky and is expanded to the entire Central European territory demonstrably influenced over the long-term by Great Moravian culture while mapping the occurrence of sheet metal and cast spherical clothing components in the Eurasian space (Tab. 5).

4.1 TECHNICAL AND TECHNOLOGICAL PARAMETERS OF SHEET METAL GOMBÍKY

In the past, the technical data and manufacturing technology of gombíky were studied to a limited extent more through external supplied analyses without clear interpretive conclusions on the development of the artefacts themselves.¹ Instrument analyses of a large number of Mikulčice gombíky were conducted in recent years under the supervision of archaeologist and technologist E. Ottenwelter from the Czech Academy of Sciences, Institute of Archaeology, Prague. This research primarily had a material-analytical focus, later supplemented by a production-technological approach. A total of 35 sheet metal gombíky, i.e. 11% of the total number of finds from Mikulčice, were analysed in this

TAB. 5 | Overview of the analysis type applied to gombíky from Mikulčice and from other sites.

Type of analysis	Mikulčice acropolis and extra-mural settlement	Mikulčice agglomeration with hinterland	Other sites
Technical and technological data of gombíky	Yes	No	No
Grave context	Yes	No	No
Sex/gender and age-at-death of the deceased buried with gombíky	Yes	Yes	No
Location of the burial grounds and chronology of the finds	Yes	Yes	Yes

research. The research revealed significant differences in the technical data of gombíky (e.g. in the purity of metals, in reaching the eutectic point between the soldered metals, etc.), which support the assumption that they were produced in different workshops by craftsmen of varying skill and experience.²

In this book, the study of the technical and technological parameters of sheet metal gombíky is designed to effectively and simply follow these parameters in a large number of artefacts and then use these results for the interpretation of gombíky. As such, I deemed the method of macroscopic analysis without special instruments to be sufficient. The basis of the analysis was the assemblage of artefacts from the acropolis and extra-mural settlement of the Mikulčice agglomeration. Artefacts from the peripheral part of the agglomeration and from hinterland were not described equally detailed as those from the central parts of the agglomeration, as a large number of them were not physically available to me. Specifically, I therefore processed 316 sheet metal gombíky found in both funeral and settlement context at the Mikulčice acropolis and extra-mural settlement in this chapter about technical and technological parameters (some gombíky from the peripheral part of the agglomeration and hinterland were used only as illustrative examples for a specific typological group in the figures).

1 The first analyses of ornaments in general compared the parameters of artefacts from Moravia and from Bohemia (SMETÁNKA, ŠTVERÁK, 1992, 418–430; SMETÁNKA, STAŇA 1996, 137–142; PROFANTOVÁ, FRÁNA 2003, 47–58). Blanka KAVÁNOVÁ processed fourteen gombíky in a study of the composition of Mikulčice gold (2009, 127–135); for other analyses of Mikulčice ornaments, see KAVÁNOVÁ, ŠMERDA 2010, 151–162; KAVÁNOVÁ 2011, 23–29. The most recently published works include analyses of metal artefacts from graves from the Church of Saint Margaret in Kopčany (BAXA ET AL. 2010, 492–513).

2 Summarised (with additional categories of ornaments) in OTTENWELTER 2022, 127–186. For separately published results, see OTTENWELTER ET AL. 2020, OTTENWELTER 2020B; KRUPÍČKOVÁ ET AL. 2021.

4.1.1 Jewellery-making techniques

The jewellery-making techniques applied on sheet metal gombíky can generally be characterised as hammering the entire parts making up the body of the gombík or its components (e.g. bosses); chasing of the ornamental decoration of the surface of the sheet metal parts; and application of granulation, filigree and glass inserts soldered to the surface of artefacts.³ Based on the jewellery-making techniques employed in shaping the surface (or on their absence), I divide the gombíky into the following three groups (see Tab. 6 for their numbers):

TABLE 6 | Overview of the sheet metal gombíky from the acropolis and extra-mural settlement of the Mikulčice-Kopčany agglomeration (including settlement finds).

Type of sheet metal gombík	Number	% of the total
Undecorated	15	5%
With chased decoration - vertical ribbing	13	4%
With chased decoration - plant ornament	121	38%
With chased decoration - zoomorphic ornament	13	4%
With chased decoration - anthropomorphic ornament	2	1%
With chased decoration - geometric ornament	23	7%
With chased decoration, total	172	54%
With soldered decoration - full-surface granulation	28	9%
With soldered decoration - coarse sparse granulation (including polyhedral shaped)	15	5%
With soldered decoration - 'poppyseed' granulation	22	7%
With soldered decoration - filigree wires	13	4%
With soldered decoration - with filigree strips (two layered)	4	1%
With soldered decoration - filigree bosses	15	5%
With soldered decoration, total	97	31%
Indeterminable	32	10%
Total	316	100%

1. undecorated: no decoration is applied to the hammered shell; some specimens have a ring of beaded wire (Fig. 9);
2. with soldered decoration: additional decorative components are soldered to the hammered shell, including granulation (with or without underlays), filigree and smooth wire, bent filigree

3 For a description of technologies, see e.g. TÄUBL 1976.



FIG. 9 | Undecorated gombíky.

1 - Mikulčice, church 2, grave 71, photo by J. Foltýn; 2 - Mikulčice, Panské, grave 61, photo by M. Bárta; 3 - Mikulčice, Panské, grave 96b, photo by M. Bárta.

3. strips, bosses (small sheet metal hemispheres), beds with glass inserts;
3. decorated with chasing: the decoration is laid out by engraving (with the use of a compass, ruler, template),⁴ the gombík is reinforced with a soft and easy to melt material (jeweller's pitch), the decoration is then made by chasing with with the use of a set of punches. In exceptional cases, a gombík decorated with chasing also has glass inlays; otherwise, soldered decoration is not usually combined with chasing.⁵

The last two categories can be broken down in greater detail based on the artistic-craft rendering of the decoration, a division that can also be understood as a basic gombík typology.

Based on the combination of metal components, I divide gombíky with soldered decoration into: gombíky with full-surface granulation on an underlay of smooth (rarely filigree) wire (Fig. 10: 1), gombíky with sparse coarse granulation on an underlay of smooth wire (Fig. 10: 2), gombíky with 'poppyseed' granulation without an underlay forming ornamental decoration (combinations of triangles, lines, sometimes in the shape of a cross) (Fig. 10: 3), gombíky with filigree wires (most often rope twist and beaded wire), often in combination with granulation (Fig. 10: 4), gombíky with bent filigree strips (in combination with bosses and granulation) - 'two-layered' (Fig. 10: 5), gombíky with sheet metal bosses (in combination with 'poppyseed' granulation) (Fig. 10: 6).

I divide gombíky decorated with chasing further on the basis of the form of this chasing.⁶ The simplest chasing is found on groups of gombíky with unified decoration - with vertical ribs (Fig. 11: 1), with a surface divided into eight fields (Fig. 11: 6a, 6b) and with spiral decoration (Fig. 11: 2). For more complex decoration, we designate the basic units of chasing as components, i.e. simple forms that we divided into lines typically converging at 'neuralgic points'

4 Traces of pre-engraved decoration appear on some gombíky.

5 Exceptions are polyhedral gombíky with glass, chasing and sparse coarse granulation (including 'lantern' gombíky). On the majority of gombíky, filigree wire was also used as a ring to secure the loop.

6 The following paragraph was reworked from the dissertation in Czech; for a detailed look, see KRUPIČKOVÁ ET AL. 2023, 76-80.



FIG. 10 | Gombíky with soldered decoration. 1 - With full-surface granulation on smooth wire underlay; 2 - coarse sparse granulation on smooth wire underlay; 3 - ornamental 'poppyseed' granulation without wire underlay; 4 - with soldered filigree wire; 5 - two-layered (with filigree strips, bosses, granules); 6 - with sheet metal bosses.

1a - Mikulčice, church 3, grave 505;
 1b - Mikulčice, Kostelisko, grave 1870;
 1c - Mikulčice, Kostelisko, grave 1766;
 1d - Mikulčice, church 6, grave 77/VI;
 2a - Mikulčice, church 3, grave 318;
 2b - Mikulčice, church 2, grave 271;
 2c - Mikulčice, church 3, grave 364;
 2d - Mikulčice, Panské, grave 46;
 3a - Mikulčice, church 3, grave 300;
 3b - Mikulčice, church 3, grave 470;
 3c - Mikulčice, church 3, grave 437;
 3d - Mikulčice, church 2, grave 212;
 4a - Mikulčice, church 3, grave 440;
 4b - Mikulčice, Panské, grave 78;
 4c - Mikulčice, church 3, grave 531;
 4d - Mikulčice, church 3, grave 472;
 5a - Mikulčice, church 3, grave 505;
 5b - Mikulčice, church 2, grave 98;
 6a - Mikulčice, church 3, grave 505;
 6b - Mikulčice, church 6, grave 160/VI;
 6c - Mikulčice, church 2, grave 51;
 6d - Mikulčice, church 2, grave 134.
 Photo by J. Foltýn; 2d, 4b - photo by M. Bárta.



FIG. 11 | Gombíky with chased decoration. 1 - Vertical ribbing; 2 - spiral decoration; 3 - plant; 4 - zoomorphic; 5 - anthropomorphic; 6 - geometric.

1a - Mikulčice, church 3, grave 580; 1b - Mikulčice, church 3, grave 425; 1c - Mikulčice, church 3, grave 504; 1d - Mikulčice, church 6, 161/VI; 2 - Mikulčice, church 12, grave 1526; 3a - Mikulčice, church 3, grave 380; 3b - Mikulčice, church 3, grave 328; 3c - Mikulčice, Kostelisko, grave 1871; 3d - Mikulčice, church 3, grave 396A; 3e - Mikulčice, church 7, grave 11/VII; 3f - Mikulčice, church 3, grave 427; 3g - Mikulčice, church 2, grave 44; 3h - Mikulčice, church 3, grave 550; 3i - Mikulčice, church 3, grave 396A; 3j - Mikulčice, church 3, grave 662; 4a, b - Mikulčice, church 4, grave 64/IV; 4c - Mikulčice, Kostelisko, grave 1729; 4d - Mikulčice, church 3, grave 58; 4e - Mikulčice, Klášterisko, grave 1314; 5 - Mikulčice, church 3, grave 170; 6a - Mikulčice, settlement find, Inv. No. 989/57; 6b - Mikulčice, church 2, grave 64; 6c - Mikulčice, church 3, grave 1182; 6d - Mikulčice, church 6, grave 42/VI. Photo by J. Foltýn; 1c, 3b, 4d - photo by M. Bárta.

named according to their shape, such as capital/base, transverse pin and disc. Schemes are created on the basis of the specific arrangement of components.⁷ The most common scheme in Mikulčice is an arcade formed by straight and curved lines arranged in a bordered square shape with an 'arched' upper part. Arcades always appear in threes on gombík shells (Fig. 12: 1). The second most common scheme on gombíky from the Mikulčice fortified settlement is a cordate meander composed of components creating heart-shaped forms on the surface (Fig. 12: 2). Third in the frequency of occurrence is a scheme in the shape of a medallion - the components are arranged in a bordered round shape that repeats three or four times on the surface of the gombík (Fig. 12: 3). I refer to a scheme that does not accentuate the central band of gombíky around the joint of the hemispheres and covers the entire surface area of the artefact in closed repeating fields as a net (Fig. 12: 4). In addition to these established schemes, exceptions also appear in the form of uniquely arranged components, which cannot be further classified (Fig. 12: 5).

Motifs mostly of a plant nature are usually placed in the schemes formed by the components, i.e. mainly a stylised motif of a palmette and an acanthus leaf; a rosette or a lily-like motif also appear in rare cases. Less common are zoomorphic motifs, typically depicting birds; fish were depicted on two pairs of gombíky, while a four-legged animal appeared on one gombík. Depictions of human faces are similarly rare; these are known from the shells of two gombíky from the Mikulčice acropolis and from two artefacts discovered at the Skalica cemetery, which we include in the hinterland of the fortified settlement. Motifs are not found on the aforementioned characteristic groups of gombíky with unified chasing (gombíky with vertical ribs, gombíky with decoration arranged in a scheme dividing the artefact into eight fields and gombíky with spiral decoration). Based on decorative motifs or their absence, we define the overall gombík ornament and, as such, speak of four main groups of gombíky decorated with chasing: gombíky with plant ornament (Fig. 11: 3), with zoomorphic ornament (Fig. 11: 4), with anthropomorphic ornament (Fig. 11: 5) and with geometric ornament (motifs are absent, similar to gombíky with unified chasing) (Fig. 11: 6).

Motifs and schemes on gombíky can typically be defined by these few groups, albeit always original (due to manual application). The numerous scholars who studied motifs and their arrangement in the past sought their models in oriental ornamentation appearing on finds from distinct materials and with various functions ranging from toreutics to silk.⁸ Consistent with the research that has been carried out, I believe that both the motifs and the schemes are a reflection of the period's supraregional fashions with roots in the rich antique-oriental tradition. At the same time, I am sceptical of the possibility of deciphering their spread through the early medieval world without a detailed comparative study of artefacts from various relevant regions using a clearly defined (uniform) method. Without the use of exact research methods, we must basically rely on collecting endless numbers of analogies of palm leaves, acanthus, bird ornaments, cordate meanders, etc. appearing on chased toreutics, stone architectural elements or on silk. The mechanism by which these supraregional fashion models spread cannot be described for now with greater clarity, due in no small part to poorly connected international research, its diverse character and the uneven level of knowledge. It seems to me that tracking some clearer structure in the occurrence of motifs and patterns of their decoration within the framework of Great Moravia is a more important and realistically achievable task in the study of gombíky at this time. Through the basic combination of motifs and schemes of gombíky with chased decoration, it is possible to conclude that in Mikulčice the most common occurrence belongs to plant ornament arranged in an arcade scheme, which can be considered as evidence of the longest use and great popularity in living culture (Tab. 7). I will delve deeper into the chronological and regional connections in the occurrence of motifs and schemes in Chapters 4.3.7 *Gombíky as identifiers of social status* and 4.4.10 *Transformations of gombíky in space and time*.

7 The first three of the following schemes were taken from HRUBÝ 1955.

8 In particular KLANICA 1970A (with additional refs.); BENDA 1961; BUREŠ 1964; KLANICA 1991; ANOŠKINOVÁ 1995; comprehensively most recently in KOHOUTKOVÁ 2008.

1



a



b



c



d

2



a



b



c



d

3



a



b

FIG. 12 | Gombíky with chased decoration: schemes. 1 - Arcade; 2 - cordate meander; 3 - medallion; 4 - net; 5 - unclassified. 1a - Mikulčice, church 3, grave 490; 1b - Mikulčice, church 7, 11/VII; 1c - Mikulčice, 'palace', grave 780; 1d - Mikulčice, church 3, grave 349; 2a - Mikulčice, church 2, grave 100; 2b - Mikulčice, church 3, grave 343; 2c - Mikulčice, church 3, grave 328; 2d - Mikulčice, Kostelisko, grave 1871; 3a - Mikulčice, church 3, grave 508; 3b - Mikulčice, church 3, grave 662;

4



a



b



c



d

5



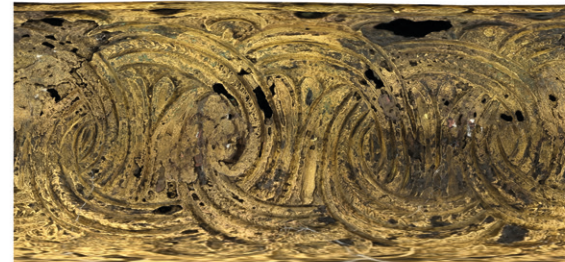
a



b



c



d



e



f

4a - Mikulčice, church 3, grave 170; 4b - Mikulčice, church 3, grave 216; 4c - Mikulčice, Klášteřisko, grave 1314; 4d - Mikulčice, Kostelisko, grave 1766; 5a - Mikulčice, church 2, grave 54; 5b - Mikulčice, church 3, grave 550; 5c - Mikulčice, church 6, grave 42/VI; 5d - Mikulčice, church 6, grave 178/VI; 5e - Mikulčice, church 3, grave 398; 5f - Mikulčice, settlement find, Inv. No. 3083/78. Photo by M. Bárta, model calculation by J. Šindelář.

TABLE 7 | Combination of motif and scheme in the decoration of chased gombíky from the acropolis and extra-mural settlement of the Mikulčice-Kopčany agglomeration.

Motif/scheme	Arcade	Medallion	Cordate meander	Net	Unclassified
With chased decoration - plant ornament	43	19	28	10	11
With chased decoration - zoomorphic ornament	5	5	-	2	-
With chased decoration - anthropomorphic ornament	-	-	-	2	-
Total	48	24	28	14	11

4.1.2 The complexity of jewellery-making techniques

As determining the complexity of jewellery-making techniques and decorations used in the production of gombíky is a research area beyond the common knowledge of an archaeologist, for study in this area I used a combination of jewellery-making textbooks (BRANIŠ ET AL. 1968; TĀUBL 1976), information from specialised conferences and workshops, but above all I draw on my cooperation of several years with jewellers and conservation specialists L. Barčáková⁹ and M. Fořt,¹⁰ and also with technologist and material analyst E. Ottenwelter (OTTENWELTER 2018; 2019; 2020A; 2020B; 2021; 2022; for separately published results, see OTTENWELTER ET AL. 2020B, OTTENWELTER 2020; KRUPIČKOVÁ ET AL. 2021).

In general, the jewellery-making techniques of chasing and the application of granulation and filigree, which are used in the production of gombíky, can be described as highly demanding and always unique procedures requiring hundreds of hours of labour (BARČÁKOVÁ 2014, 414–418). This fact alone makes gombíky extraordinary artefacts. Nevertheless, the amount of time required for production apparently was not the main indicator of the price of early medieval jewellery. In the scale of values, human labour

lagged far behind the presentation of the complexity of the production process, mastered by only the best craftsmen working for the highest elite (UNGERMAN 2020B, 179–180; 2020D, 278–280; 2020E, 281–285). In the case of hollow gombíky, types that had undergone multiple soldering can be designated as especially demanding. Repeated heating caused the air inside the shell to expand, creating the risk that the metal would tear.¹¹ As such, if certain gombíky were heated several dozen times, which would have been the case with those with soldered bosses, there was a greater risk of wasting the labour already invested in the product and, as such, production placed high demands on the dexterity of the craftsman. Similarly, it was no simple task to hammer an item with the height of roughly two-thirds to three-quarters of a sphere from a single piece of sheet metal, as is the case of gombíky in the structural group of shells designated as variant B. The application of glass inserts and the production of beaded wire can also be classified among impressive yet complicated procedures. Any type of decoration with a large number of related steps can in general be characterised as technologically demanding (two-layered gombíky, gombíky with bosses, polyhedral lantern gombíky, gombíky with ‘poppyseed’ granulation; Fig. 13). In the case of gombíky with chased decoration, the definition of demanding procedures

⁹ Ludmila Barčáková’s published findings on the complexity of production were taken into account (BARČÁKOVÁ 2014, 344–354, 414–418).

¹⁰ Recently especially within the project of the Czech Ministry of Culture (NAKI III), Reg. No. DH23P030VV020, in 2023–2027.

¹¹ Apparently for this reason there are intentional perforations in the gombík shells to avoid the effects of overheating and the tearing of the sheet metal; see OTTENWELTER ET AL. 2020,9; OTTENWELTER 2020B, 313.



FIG. 13 | Technologically demanding types of gombíky with soldered decoration. 1 - Two-layered; 2 - with soldered bosses; 3 - polyhedral with coarse sparse granulation and glass inlays ('lantern'), 4 - with 'poppyseed' granulation. 1 - Mikulčice, church 3, grave 505; 2 - Mikulčice, church 2, grave 134; 3 - Mikulčice, church 3, grave 318; 4 - Mikulčice, church 3, grave 300. Photo by J. Foltýn.

TAB. 8 | Definition of the demanding processes in relation to typological groups of gombíky.

Typological group of gombíky	Demanding processes	Demanding typological groups of gombíky
With chased decoration	Double-sided chasing; systematic layout of decoration (with grooving punch, compass); punching borders of the plant motifs; pearl wire; chasing the sphere from one piece of sheet metal	Cannot be typologically defined yet
With soldered decoration	Repeating soldering, 'poppyseed' granulation, filigree sheets made from wires, application of glass inlays, pearl wire	With bosses, two-layered, with 'poppyseed' granulation, polyhedral with glass inlays

is more difficult and subjective. This undoubtedly includes the advanced technique of two-sided chasing – the combination of chasing and repoussé¹² and also the complicated creation of motifs in combination with its precise layout (Tab. 8).

I see the research potential of the evaluated category of jewellery-making complexity in the separation of groups of truly elite and extraordinarily technologically demanding gombíky, which could have served as models for imitations with a less complicated design (I address this subject in greater depth in Chapter 4.1.10 *The contribution of research of technical and technological data of gombíky and the definition of their elite nature*). In agreement with Š. Ungermaň's model on impulses from elites to the broader classes of the population (UNGERMAN 2005, 716–717), it is also possible to observe the chronological beginning of the spread of a specific trend among model artefacts.

4.1.3 The quality of jewellery-making techniques

As difficult as it might be for an archaeologist to define the complexity of the jewellery-making technique, evaluating the quality of the work is an even greater problem. At the moment, we are not working with a general procedure and defining the technological complexity of gombík production; we are evaluating the skill and experience of the craftsman. Macroscopically and without special technological knowledge, this task can be carried out only superficially and (to a significant extent) subjectively. As the research of E. Ottenwelter (OTTENWELTER ET AL. 2020) has shown, following the eutectic point of the solder, the pouring of granules during soldering, the thickness of the sheet metal and the purity of the metal, i.e. analyses that cannot be realised without the use of instruments, are essential for determining product quality. Nevertheless, certain aspects of gombík quality can be observed in a less sophisticated manner and in my opinion they speak to the quality of products. For example, production errors can be found on gombíky. However,

the resulting assessment must be individual – some very steadily and regularly chased gombíky have faults that evidently did not arise from the lower skill level of the craftsman, but rather from an oversight or simply the unimportance of following the rules. A typical example is the pair of gombíky from grave 216 from the church 2 in Mikulčice. This pair of silver gombíky ranks among the largest artefacts of this type from Mikulčice; their surface has applied glass inserts and regularly chased rosettes in a net scheme. All the more surprising then is the fact that gombík 1300b/57 has ten leaves instead of the eight found on all of the other rosettes. And yet, this finding cannot significantly lower the production quality of this gombík pair. In contrast, the incomplete chasing of the regular geometric ornament on gombík Inv. No. 572/60 from grave 42/VI at church 6 in Mikulčice in combination with the simple and also irregular ornament creates the impression of low-quality or unskilled work (Fig. 14).

The study of the production quality of gombíky is again promising for the identification of perfectly crafted patterns and their differentiation from imitations, which would be highly beneficial especially with the broad palette of mediocre gombíky. But in order for this category to become regularly scientifically evaluable, it would be necessary to develop a clear descriptive system with a detailed account of the evaluation for individual types from the entire typological spectrum of gombíky, including tracing the craftsman's characteristic style and the tools used. As technologists and jewellers should ideally also join the archaeologist in creating such a system, its design is beyond the scope of the presented work.

4.1.4 The construction of the shell and attachment system

The basic construction principles of gombík bodies make it possible to divide the form of the shell and attachment system into three groups (Fig. 4, 5; after OTTENWELTER ET AL. 2020). The shells of the gombíky from Mikulčice were most commonly created by soldering two hemispheres together, which I refer to as variant A. The second most common variant, which I label with the letter B, were hammered to roughly three-quarters of their height from a single piece of sheet metal – extraordinarily

12 From the analysed 35 Mikulčice gombíky, E. Ottenwelter defined this technology on three artefacts (from grave 100 at the church 2 and grave 328 and 662 from the church 3; OTTENWELTER 2018, 5; 2020A, 4; 2021, 4).



FIG. 14 | Production irregularities and defects. 1 - Arrow shows excessive number of rosette petals; 2 - frame shows place with pre-engraved decoration not fully chased. 1 - Mikulčice, church 3, grave 216, photo by J. Foltýn; 2 - Mikulčice, church 6, grave 42/VI, photo by J. Foltýn and M. Bárta.

TAB. 9 | Construction of the shell and attachment system of the gombíky from from the acropolis and extra-mural settlement of the Mikulčice-Kopčany agglomeration.

Typological group of gombík/construction	Sphere constr. type A	Sphere constr. type B	Sphere constr. type C	Attachment system type A	Attachment system type B	Attachment system type C
Undecorated, total	10	-	1	-	5	-
With chased decoration - vertical ribbing	6	4	3	-	13	-
With chased decoration - plant ornament	61	23	21	69	32	3
With chased decoration - zoomorphic ornament	9	2	1	7	6	-
With chased decoration - anthropomorphic ornament	2	-	-	2	-	-
With chased decoration - geometric ornament	19	-	-	7	12	-
With chased decoration, total	97	29	25	85	63	3
With soldered decoration - full-surface granulation	27	-	-	1	18	2
With soldered decoration - coarse sparse granulation (including polyhedral shaped)	14	-	-	4	-	8
With soldered decoration - 'poppyseed' granulation	17	-	-	5	8	1
With soldered decoration - filigree wires	12	-	-	-	5	-
With soldered decoration - with filigree strips (two-layered)	4	-	-	-	2	2
With soldered decoration - filigree bosses	12	-	-	6	2	-
With soldered decoration, total	86	-	-	16	35	13
Total	194	29	26	101	103	16

TAB. 10 | Dependence of gombíky construction on material according to the finds from the acropolis and extra-mural settlement of the Mikulčice-Kopčany agglomeration.

Material/ construction	Sphere construction type A	Sphere construction type B	Sphere construction type C	Attachment system type A	Attachment system type B	Attachment system type C
Gold	15	4	-	1	11	7
Silver	71	12	9	44	38	4
Copper alloy	108	13	17	58	55	5
Total	194	29	26	103	104	16

demanding work that required significant dexterity in hammering, which could in part explain their relatively infrequent occurrence (most gombíky of this type were new recognised by using X-ray analysis). Appearing in the smallest numbers are variant C gombíky, which were composed again of two hemispheres, but on which a round cap – a 'collar' – sits on the top pole (sometimes a false collar also appears made only by chasing – an X-ray analysis is necessary for differentiation). As mentioned above, the three variants can also be divided by the construction of the attachment system. Variant A has a round loop attached to the shell by a clamp and securing ring, while variant B is characterised by a split loop secured only with a ring. The last possibility is a combination of a split loop also secured by a clamp and a ring. Variants A and B appear in roughly the same number, whereas variant C appears on far fewer gombíky. Variant A is typical for gombíky with chasing, especially then with plant ornament, and commonly appears on silver gombíky and gombíky from a gilded copper alloy. Variant B is characteristic of gombíky with soldered decoration and is also strongly predominant among undecorated artefacts and those with vertical ribbing; in terms of material, gold is especially linked to this variant (Tab. 9, 10).

I interpret the construction changes in gombíky as a transformation in their practical function. Particularly striking is the variety in the attachment mechanism, including a split loop with a ring representing a strong method of attachment, and at the same time a round loop with a clamp creating a movable connection. In my opinion, these distinct methods of production could characterise, e.g., different jewellery workshops, but they could also be a parameter related to the different practical functions of the artefacts. Early medieval clothing fasteners typically have a solid fastening mechanism that is frequently supported by buttons cast in a single piece (an example is mushroom-shaped fasteners for caftan-type clothing). In contrast, pendants known as clothing applications from Byzantium tend to have a movable fastening system. As such, I believe that the different attachment system on gombíky could represent two distinct application methods on clothing, perhaps indicating a chronologically conditioned change. This subject is addressed in greater detail in Chapters 4.1.10 *The contribution of research of technical and technological data of gombíky and the definition of their elite nature*, 4.2.1 *The number of gombíky in graves*, 4.4.8 *Modeling the relative chronology of Great Moravian gombíky* and 5.1 *The practical function of gombíky*.

4.1.5 Material

Gombík material was determined by macroscopic observations, whereas the material of unpreserved artefacts was taken from records in inventory books. This determination could be confirmed for 35 sheet metal gombíky using SEM/EDS conducted by E. Ottenwelter and D. Janová,¹³ and it can be noted that the basic identification of the major raw material by means of macroscopic observations never differed from instrument determination (though this was also able to define minority metals and alloy ratios).

For the presented research on sheet metal gombíky, the following general categories were defined by macroscopic observation: gold,¹⁴ (gilded) silver, (gilded/silver-plated) copper alloy. Other types of gombíky and their specific materials – lead, glass with an iron/copper alloy loop and iron specimens – have not been evaluated in greater detail to date (Tab. 11). The material criterion for evaluating gombíky is particularly important for formulating the social structure and hierarchy (Fig. 7). Gold gombíky were found only in several Mikulčice graves at the acropolis, which can therefore be connected with the highest nobility. Members of the Mikulčice elite can also be expected in graves with silver gombíky. More complicated then is the characterisation of gombíky from copper alloys, which could testify to burials of individuals of relatively lower social status, though the quality of the specific gombík could play a role in the interpretation or a different chronology could be manifested in this trend.¹⁵

In connection with the assumed material conditionality of the chronological development of gombíky, it is extremely interesting to find that gold and silver gombíky are linked to their selected types. Undecorated gombíky, lantern gombíky (placed in the category of coarse, sparse granulation; two other polyhedral specimens with sparse granulation have plant chased ornament, so they are placed in category with plant ornament in table overview) and two-layered gombíky appear in relatively high numbers in gold. Along with a pair of gombíky with filigree wire from grave 440, it is possible to see potential imports

13 See unpublished find reports from OTTENWELTER 2018, 2019, 2020, 2021; individual results are published in the monograph OTTENWELTER 2022.

14 For an overview of all gold finds from Mikulčice, see KOUŘIL, POLÁČEK 2013, 407–422.

15 It is theoretically possible to consider an effective gold substitute by gilding the surface of a copper alloy, e.g. as a result of the depletion/restricted movement of raw materials.

TAB. 11: | Estimation of material determination of the gombíky from the acropolis and extra-mural settlement of the Mikulčice-Kopčany agglomeration.

Typological group of gombík/material	Total	Gold	Gold %	Silver	Silver %	Copper alloy	Copper alloy %
Undecorated, total	15	4	27%	1	7%	10	67%
With chased decoration - vertical ribbing	13	2	15%	4	31%	7	54%
With chased decoration - plant ornament	121	5	4%	48	40%	68	56%
With chased decoration - zoomorphic ornament	13	-	-	7	54%	6	46%
With chased decoration - anthropomorphic ornament	2	-	-	-	-	2	100%
With chased decoration - geometric ornament	23	-	-	-	-	23	100%
With chased decoration, total	172	7	4%	59	34%	106	62%
With soldered decoration - full-surface granulation	28	-	-	18	64%	10	36%
With soldered decoration - coarse sparse granulation (including polyhedral shaped)	15	3	20%	1	7%	11	73%
With soldered decoration - 'poppyseed' granulation	22	1	5%	21	95%	-	-
With soldered decoration - filigree wires	13	2	15%	-	-	11	85%
With soldered decoration - with filigree strips (two-layered)	4	2	50%	2	50%	-	-
With soldered decoration - filigree bosses	15	-	-	13	87%	2	13%
With soldered decoration, total	97	8	8%	55	57%	34	35%
Total	284	19	7%	115	40%	150	53%

in this group. These were further modified in Great Moravia or were model artefacts that were then imitated in silver or copper alloys. On the other hand, the entire group of gombíky with chased decoration probably represents the following development stage featuring a predominance of silver and copper alloys used in their production. The majority of gombíky were eventually widely copied in copper alloys, a material that is fully typical for gombíky with geometric ornament, with coarse and sparse granulation and with filigree wire (especially gombíky with soldered rings). It is precisely these groups of artefacts that can probably be tentatively designated as less elite representatives of gombík fashion.

4.1.6 Dimensions

Gombíky are highly variable in terms of size. The largest Mikulčice artefact of this type is the gombík with chased decoration Inv. No. 3083/78, surprisingly found in a settlement context, whose height with loop is 52.3 mm (40.9 mm excluding loop) and whose maximum shell diameter is 44.5 mm (Fig. 15: 1). On the other hand, the smallest gombík from Mikulčice is Inv. No. 4526/57 from grave 98 from church 2 with a height of 10.0 mm with loop (6.0 mm without loop) and a maximum shell diameter of 5.5 mm (Fig. 15: 2). Extensive research is based on measurements of sheet metal gombíky in the categories of total height with loop / height of shell without loop / shell diameter (measured data for individual gombíky are available in the catalogue); 99 sheet metal artefacts could not be measured due to fragmentary preservation or or destruction in the 2007 fire. Based on their size,

I divided gombíky into the categories of small (max. body diameter 1.9 cm), medium (max. body diameter 2.0-2.9 cm) and large (body diameter 3.0 cm +).

A connection between the employed jewellery-making technique and size is apparent among the Mikulčice gombíky. The group of large gombíky exclusively contains those with chased plant or zoomorphic ornament. In contrast, gombíky with soldered decoration typically belong to the small category. An exception is soldered artefacts whose enlargement to the dimensions of the medium category required demanding production technology, i.e. especially two-layered and boss gombíky (Tab. 12). But there is



FIG. 15 | Largest and smallest gombík from Mikulčice. 1 - Mikulčice, settlement find, Inv. No. 3083/78, photo J. Foltýn; 2 - Mikulčice, church 2, grave 98, photo by M. Bárta.

TAB. 12 | Dimensions of the gombíky from the acropolis and extra-mural settlement of the Mikulčice-Kopčany agglomeration.

Typological group of gombík/ dimensions	Number of measurable specimens	Average dimensions of body diameter	Small	Small %	Medium	Medium %	Large	Large %
Undecorated, total	5	11.2 mm	5	100%	-	-	-	-
With chased decoration - vertical ribbing	11	15.6 mm	11	100%	-	-	-	-
With chased decoration - plant ornament	101	23.6 mm	33	32%	46	46%	22	22%
With chased decoration - zoomorphic ornament	12	23.6 mm	7	58%	2	17%	3	25%
With chased decoration - anthropomorphic ornament	2	20.9 mm	-	-	2	100%	-	-
With chased decoration - geometric ornament	16	18.4 mm	8	50%	8	50%	-	-
With chased decoration, total	142	20.5 mm	59	41%	58	41%	25	18%
With soldered decoration - full- surface granulation	23	16.5 mm	15	65%	8	35%	-	-
With soldered decoration - coarse sparse granulation (including polyhedral shaped)	12	17.1 mm	10	83%	2	17%	-	-
With soldered decoration - 'poppyseed' granulation	14	15.4 mm	11	79%	3	21%	-	-
With soldered decoration - filigree wires	5	15.6 mm	5	100%	-	-	-	-
With soldered decoration - with filigree strips (two-layered)	4	21.8 mm	-	-	4	100%	-	-
With soldered decoration - filigree bosses	12	20.4 mm	3	25%	9	75%	-	-
With soldered decoration, total	70	17.8 mm	44	63%	26	37%	-	-
Total	217	16.5 mm	108	50%	84	39%	25	11%

TAB. 13 | Relationship between gombík size and material

Material/ dimensions	Small	Small %	Medium	Medium %	Large	Large %	Immeasurable	Immeasurable %
Gold	15	14%	3	4%	-	-	1	1%
Silver	36	33%	22	26%	23	92%	46	45%
Copper alloy	58	53%	59	70%	2	8%	48	50%
Indeterminable	-	-	-	-	-	-	4	4%
Total	109	100%	84	100%	25	100%	99	100%

also a connection between gombík size and the production material. It is clear from this comparison that silver was an ideal metal for chasing large artefacts, whereas gold gombíky, due to the value of the metal and its relatively greater softness, are mostly small, with only a few of medium size. Copper alloy was then a certain universal metal for small and medium gombíky (Tab. 13). The social status of the user could again be reflected in the size of gombíky. The greater amount of metal meant the higher cost of the gombík. While weight also played a role, size is definitely a more visible choice for demonstrating the amount of metal used (moreover, for decoration in the form of chasing, suitable sheet metal thickness is

essentially a given). From the perspective of functionality, a comparison of the size and construction of the attachment system of gombíky seems important and clearly shows a connection between smaller gombíky and the immovable attachment system in the form of variant B, while large to medium gombíky were typically equipped with a movable circular loop referred to as variant A (Tab. 14). This finding is consistent with the assumption that smaller gombíky were more likely to be used as practical clothing fasteners, while their large counterparts performed a more social and symbolic role on clothing. Again, chronological aspects may have been an important factor in size variation in connection with other parameters.

TAB. 14 | Relationship between gombík dimensions and the construction of the attachment system according to the finds from the acropolis and extra-mural settlement of the Mikulčice-Kopčany agglomeration.

Attachment system/dimensions	Small	Small %	Medium	Medium %	Large	Large %	Immeasurable	Immeasurable %
Type A (movable)	19	17%	52	62%	23	92%	9	9%
Type B (immovable)	67	62%	20	23%	2	8%	15	15%
Type C (immovable)	11	10%	4	5%	-	-	1	1%
Indeterminable	12	11%	8	10%	-	-	73	75%
Total	109	100%	84	100%	25	100%	98	100%

4.1.7 Shape

Even a cursory familiarity with gombíky makes clear that a majority of them are characterised by a spherical shape. However, during a detailed processing, it was possible to single out representatives with polyhedral, pear-shaped and oval shells.¹⁶

The overwhelming predominance of spherical gombíky (over 90%) testifies to the clear formal preference of their producers and users (Tab. 15). What's more, the spherical form remained a constant feature throughout the entire period of the occurrence of gombíky, which reveals that this form was tied to the significance (mental environment) of the artefacts. Gombíky are not an isolated case in this sense. The spherical clothing applications known from various parts of the early medieval world are attributed to the magical/protective effect. Specific examples include crystal *bound pendants* from the Merovingian world and textile appliqué - *clavi* - in the cultural sphere of Byzantium.¹⁷ I address the formal symbolism of gombíky in greater detail in Chapter 5.3 *The symbolic significance of gombíky*.

The only other more significantly represented formal phenomenon is the group of polyhedral gombíky, the most numerous of which are 'lantern' gombíky with glass inlays (most of them I classify typologically among gombíky with coarse and sparse granulation, Fig. 10: 2a, 2b). A unique pair of gombíky with stylised anthropomorphic decoration (Fig. 11: 5), two other gold specimens with a unique combination of plant and sparse granulation and several undecorated artefacts also had a polyhedral shape. The extent to which the straight-edged shape can be connected with finds of pyramid-shaped sheet metal gombíky known from the ancient Hungarian horizon in the Carpathian Basin, from Bulgaria, but also from the Great Moravian context from Staré Město - Na Valách, is unclear. It is possible that the polyhedral form is a developmentally later variant of the pyramidal finds, but the pyramid-shaped gombíky could also be fragments of polyhedral artefacts. In addition to pyramid-shaped gombíky, grave 286/49 from the



FIG. 16 | Pear-shaped and oval gombíky.

1a - Mikulčice, church 3, grave 471, photo by J. Foltýn;

1b - Mikulčice, church 3, grave 987, photo by J. Foltýn;

2a - Mikulčice, church 11, grave 876, photo by J. Foltýn;

2b - Mikulčice, church 3, grave 553, photo by M. Bárta.

Na Valách cemetery also contained several typologically older beads (a mosaic eye bead, beads with ring eyelets) (HRUBÝ 1955, 456-457, TAB. 67: 5). Foreign finds are then broadly dated from at least the second half of the 9th century to the second third of the 10th century (FIEDLER 1992, 193; with additional refs.) and more precise chronological conclusions are not possible at this moment without more detailed research. In any case, the polyhedral lantern gombíky in the Mikulčice assemblage represent the original smaller and compact form of gombík with a fixed split loop, which could have been used as a clothing fastener, and this function was also accurately documented for the paired artefacts from grave 498 thanks to the preserved textile loops corroded to the shells of both gombíky (KRUPÍČKOVÁ ET AL. 2019, 89-91).

16 I employ terminology from previously published formal descriptions.

17 The significance of spherical artefacts can be traced independently of time and space - see, e.g. the Neolithic working of stone spheres from Scotland; STEWART-MOFFITT 2022.

TAB. 15 | Shape of the gombíky from the acropolis and extra-mural settlement of the Mikulčice-Kopčany agglomeration.

Typological group of gombík/shape	Determinable	Spherical	Spherical %	Polyhedral	Polyhedral %	Pear-shaped	Pear-shaped %	Oval	Oval %
Undecorated, total	14	12	86%	1	7%	1	7%	-	-
With chased decoration - vertical ribbing	13	12	92%	1	8%	-	-	-	-
With chased decoration - plant ornament	115	106	92%	4	4%	4	4%	1	1%
With chased decoration - zoomorphic ornament	13	13	100%	-	-	-	-	-	-
With chased decoration - anthropomorphic ornament	2	-	-	2	100%	-	-	-	-
With chased decoration - geometric ornament	21	20	95%	-	-	-	-	1	5%
With chased decoration, total	164	151	92%	7	4%	4	3%	2	1%
With soldered decoration - full-surface granulation	28	28	100%	-	-	-	-	-	-
With soldered decoration - coarse sparse granulation (including polyhedral shaped)	17	9	53%	8	47%	-	-	-	-
With soldered decoration - 'poppyseed' granulation	19	18	95%	1	5%	-	-	-	-
With soldered decoration - filigree wires	12	10	83%	-	-	-	-	2	17%
With soldered decoration - with filigree strips (two-layered)	4	4	100%	-	-	-	-	-	-
With soldered decoration - filigree bosses	13	13	100%	-	-	-	-	-	-
With soldered decoration, total	93	82	88%	9	10%	-	-	2	2%
Total	271	245	91%	17	6%	5	2%	4	1%

Pear-shaped and oval forms were so rare in Mikulčice that they definitely could not have made up a standardised group that enjoyed longer-term popularity. It is even possible to consider their distinct chronology or emergence through another cultural sphere (Fig. 16: 1, 2). Another possibility is that the pear shape occurred unintentionally as a result of hammering the artefact body to three-quarters of the height of the sphere (shell of B type).

4.1.8 Objects inside gombíky

Some gombíky contain metal balls that make a sound to this day when the artefact is shaken. But the fact that no sound is made does not automatically mean that the gombík could not have contained a ball. If we rule out artefacts with a damaged surface, the metal ball could hypothetically be corroded to the inner wall of the gombík, thus preventing the ball from emitting a sound. Although X-ray analysis of 35 Mikulčice gombíky during material-technological analyses¹⁸ has not yet proven this pos-

sibility, the use of X-ray technology can be designated as the lone possible way to identify potential balls inside the shell. The listening method was used for the needs of this book on preserved and undamaged gombíky to detect the presence of balls.¹⁹

Balls were identified in 10 of the total number of 156 assessable gombíky (c. 6%). However, more than 40% of sheet metal gombíky could not be investigated in this way due to damage or destruction, which could significantly distort the result (Tab. 16). I also attempted to determine the connection between the presence of a ball in the gombík and the size of the gombík to define a potentially different interpretation (Tab. 17). Balls were found mainly inside chased gombíky, especially large artefacts with plant or zoomorphic ornament. Balls were identified in 10% of the assessable gombíky with chasing. However, one half of these types of gombíky had a damaged shell and thus their original content needn't

18 The analyses were conducted by E. Ottenwelter from the Restoration Laboratories of the Czech Academy of Sciences, Institute of Archaeology, Prague. An interesting finding is the presence of three balls inside gombík 1038b/57, whereas no balls were detected in its paired artefact (KRUPÍČKOVÁ 2020, 306-307).

19 A secondary perforation detected on the gombík from Mělník-Rousovice was interpreted as a way to insert a sound-emitting ball, indicating a secondary change in the function of an artefact with clear traces of long-term use (TOMKOVÁ, KOŠTA 2015, 278-279). Similar perforations are also found on Mikulčice gombíky, typically in the upper half of the shell and most frequently on artefacts of construction variants B and C (with a collar). Estelle Ottenwelter designated them as a probable production process meant to prevent the shell from cracking as a result of the heating and expansion of air during soldering (OTTENWELTER 2020B, 313).

TAB. 16 | Presence of balls inside the shell according to the finds from the acropolis and extra-mural settlement of the Mikulčice-Kopčany agglomeration.

Typological group of gombík/presence of balls inside	Without damage - with ball (RTG/listening)	Without damage - without ball (RTG/listening)	With damaged surface, destroyed (original contents unknown)
Undecorated, total	-/-	-/5	10
With chased decoration - vertical ribbing	-/-	1/4	8
With chased decoration - plant ornament	-/6	7/54	54
With chased decoration - zoomorphic ornament	1/1	2/3	6
With chased decoration - anthropomorphic ornament	-/-	-/-	2
With chased decoration - geometric ornament	-/1	1/12	9
With chased decoration, total	1/8	11/73	79
With soldered decoration - full-surface granulation	-/-	1/18	9
With soldered decoration - coarse sparse granulation (including polyhedral shaped)	-/-	3/7	5
With soldered decoration - 'poppyseed' granulation	-/-	1/10	11
With soldered decoration - filigree wires	-/-	-/5	8
With soldered decoration - with filigree strips (two-layered)	-/-	1/3	-
With soldered decoration - filigree bosses	-/1	2/6	6
With soldered decoration, total	-/1	8/49	39
Total	1/9	19/127	128

TAB. 17 | Relationship between the occurrence of a ball in the gombík shell on its dimensions according to the finds from the acropolis and extra-mural settlement of the Mikulčice-Kopčany agglomeration.

Dimension category of gombík	With ball
Small	1
Medium	3
Large	6

have been preserved. In contrast, a ball was found inside only one gombík with soldered decoration (with bosses).

The presence of balls inside the shell and hence the sound effect of gombíky can therefore apparently be connected in significance (mental environment) and hence with their use as apotropaic objects (more attention is paid to this subject in Chapter 5.3 *The symbolic significance of gombíky*).²⁰ A practical function of jingling - e.g. to alert mothers to the movement of their babies - can apparently also be ruled out. Audible to this day, gombíky with balls prove that their soft tinkling did not reach the parameters of bells and were evidently difficult to hear in the more distant surroundings of ordinary life. As such, we anticipate a symbolic role for this sound effect. Nevertheless, in Chapter 5.3 *The symbolic significance of gombíky* I address research into whether

gombíky with balls were more common in the graves of children (as with rattles), considering that children in historical societies were more frequent wearers of protective clothing accessories (KŘÍŽOVÁ 2011, 141-163).

4.1.9 The detection of textile remnants in connection with gombíky

Although gombíky must always be viewed in the context of Great Moravian clothing, their absence in present living culture, written sources and iconography means that we can only reconstruct their application in period clothing. As such, the study of textiles preserved on gombíky is another important aspect, especially if it provides testimonial value on the application of gombíky on clothing at this time. The literature presents evidence of textile finds in the context of Great Moravian gombíky,²¹ including several direct textile remains of their functional attachment in the form of preserved textile eyelets. Following a review of published finds (KRUPÍČKOVÁ ET AL. 2019, 87-106, after KOSTELNÍKOVÁ 1973), only grave 498 and 889 from Mikulčice can demonstrably be included in this category. However, only a pair of gombíky from children's grave 498 from church 3 in Mikulčice are physically preserved today (Fig. 17: 1). In terms of size, this pair ranks among small gombíky, and their solid soldering and straight-edged shape do not rule out the possibility that they genuinely were

20 On the apotropaic function of sound, see SMETÁNKA 2003, 11-16.

21 E.g. grave 335 from Břeclav-Pohansko, BŘEZINOVÁ, PŘICHYŠTALOVÁ 2014, 162.



FIG. 17 | Gombíky with preserved textiles. 1 - Knit eyelets of clothing fastener; 2 - textile string of necklace pendant. 1 - Mikulčice, church 3, grave 498; 2 - Dolní Věstonice - Na Pískách, grave 391/55. Photo by M. Bárta.

used as clothing fasteners. Further evidence is the knitted eyelets²² preserved on both artefacts. These are eyelets threaded through the metal gombík loop to attach the gombíky to the surface of the textile and eyelets corroded to the shell of both gombíky, which were originally sewn to the fastened fabric.

A glass artefact from grave 391/55 in Dolní Věstonice - Na pískách (Fig. 17: 2) represents an alternative example of the use of a gombík (KRUPÍČKOVÁ ET AL. 2019, 93–97). Preserved textiles again helped with the identification, specifically a corroded textile string that still passes through the metal tube (from the glass bead) and the loop of the gombík, which makes clear that the gombík was part of one pendant along with beads. This was apparently a necklace, since at this time it is not possible in a Great Moravian context to prove the application of a string of beads to the chest part of an article of clothing, as is known, e.g. from the Caucasus and northern Europe.²³ Dolní Věstonice also produced glass beads connected by corrosion products to glass gombíky from grave 485/49 and 600/56 (UNGERMAN 2007, 131; for more on this subject, see Chapter 4.2.3 *Joint occurrence of gombíky and beads in a single grave* and 5.1 *Practical function of gombíky*).

Based on the study of textile remnants, the application of medium-sized polyhedral gombíky with less detailed decoration on clothing as a functional neckline fastener was accurately proven. The stringing of a glass gombík on a necklace between glass beads was similarly established. Textile remnants have not yet been described on any large elite gombíky and as such, their application on clothing cannot yet be established by exact methods.

4.1.10 The contribution of research of technical and technological data of gombíky and the definition of their elite nature

An analysis of technical and technological parameters brought order to the seemingly large number of gombík types. In addition to the typological description itself, the first clusters of data representing a non-random structure began to appear. The

categories of jewellery-making techniques, dimensions and the production materials of gombíky are strongly connected, which I find highly important for the further interpretation of artefacts. I believe that the chronology principle of gombíky is also reflected in the changes in the artistic-craft rendering of the surface, size and material composition. Specifically, a group of small to medium-sized gold gombíky can be seen in the find assemblage, and these are decorated with jewellery techniques using both soldering and chasing. At the same time, gold is also the only material composition category in which artefacts with soldered decoration outnumber those with chasing, and there is a relatively large number of undecorated artefacts. In contrast, silver is typically used on medium-sized and large gombíky, most often decorated with chasing in the form of plant ornament, though soldered decoration also remains significant. Gilded copper alloy is predominant on medium-sized gombíky with chasing, whereas there are far fewer gombíky with soldered decoration from this material than with gold and silver. Closely related to these three basic characteristics is the importance of demanding jewellery techniques and the quality of decoration, parameters that are important for determining the degree to which an artefact is intended for the elite and hence for considerations on the social standing of individuals buried with gombíky. According to the model theory of the spread of fashion trends from the top of society to the broader population, there is also general chronology potential in the definition of the elite nature of gombíky - we can consider exclusive pieces in a given typological series as artefacts that 'launched' a particular fashion trend. The more artefacts a given typological group provides, the greater the potential for its spread in living society and hence the more likely the emergence of imitations of a less elite nature. For chased gombíky, I consider double-sided chasing of the sheet metal, evidence of the systematic layout of the decoration (traces of the point of a compass or from drawing a pattern), regular fine punching bordering the decorative motifs, application of beaded wire (most often in the form of a ring securing the attachment mechanism) to be extremely demanding jewellery techniques, as was hammering out the shell from a single piece of sheet metal with a collar (variant B). I generally consider procedures requiring multiple repeated soldering and careful surface layout to be extremely demanding jewellery techniques for gombíky with soldered decoration. This mainly involves the application of

22 The textile analysis was performed by H. Březinová; see KRUPÍČKOVÁ ET AL. 2019, 89–90.

23 For the Caucasus: AJBABIN, CHAJREDINOVA 2009, 118, Taf. 146; IERUSALIMSKAJA, BORKOPP 1996, 46; IERUSALIMSKAJA 2012, 61, 68, 74; for northern Europe: MARTIN 1995, 43–44; JØRGENSEN ET AL. 1997, 59, FIG. 46 (fibulae); summarised in KRUPÍČKOVÁ ET AL. 2019, 87–106.

bosses, the application of various types of distinctive relief decoration (strips, granulation) and the application of ‘poppyseed’ granulation. This also includes setting glass inserts into metal beds and, similar to gombíky with chasing, the use of beaded wire.

The definition of their elite nature emerged as a key result from technical data and the analysis of the production technology of gombíky.²⁴ I base this on a combination of the employed jewellery technique, material and size (and in this sense I use the word quality in this book); in the future, it would be possible to include the quality of the craftsmanship of artefacts through the application of special analyses. Gombíky with demanding production technologies from gold and silver can be regarded as extraordinary artefacts identifying their wearers as members of the highest Great Moravian elite.

At the same time, however, the find assemblage also contains groups of technologically simpler artefacts showing significant unification in design. These include gombíky covered with full-surface granulation on underlays, gombíky with coarse and sparse granulation, gombíky with applied filigree wire (a category that mostly coincides with gombíky with soldered rings) and gombíky decorated with chasing in geometric ornament. In terms of material, only gombíky covered with full-surface granulation regularly occur in versions from precious metal (silver). In the group of gombíky with coarse and sparse granulation, their prestige is bolstered by lantern gombíky, including three gold artefacts from grave 318, though all of the other types are made from copper alloys, most of them without any more demanding production procedures. In the group of gombíky with soldered rings, a gold pair from grave 440 at church 3 is exceptional for their extraordinarily high craftsmanship. Other artefacts then fall into the category of gilded copper alloy, a less expensive material characteristic without exception for gombíky with geometric ornament.

Thus, on the basis of eliteness, two distinct groups stand in contrast – gold or silver artefacts made with sophisticated technologies and, on the other hand, unified gombíky of simpler production processes, usually from a gilded copper alloy. The majority of the Mikulčice gombíky fall between these two poles. On the one hand, there is no doubt about the presence of the highest Great Moravian elite, i.e. the wearers of elite gombíky. On the other hand, the definition of the wearers of the second group of less elite gombíky is not as clear. They could have been members of less elite classes, e.g. non-family

members of the early medieval *familia* or more distant family that formed part of the broadly conceived early medieval household. But the explanation needn't be that simple. If we return to theoretical modelling, we can also see the chronological aspect of the spreading fashion trend in ‘seriality’ and the loss of exclusivity and luxury. From the perspective of interpretation, it will be important to further formulate the sex/gender and age-at-death of the wearers of both categories of gombíky, as well as to specify their localisation within the Mikulčice agglomeration.

4.2 THE FIND CONTEXT OF GOMBÍKY IN GRAVES

The description of the find context of gombíky has an important testimonial value for interpreting processed artefacts. Serving as a comparative example are Merovingian cemeteries, which in published model studies provided a varied range of fibulae in female graves, fluctuating in number from one to four artefacts and located in several different places in the grave, usually according to their typological classification (BRATHER 2004, 393–394, TAB. 11). I have attempted to perform a similar analysis of the number and placement of gombíky in Mikulčice graves. As supplemental information, I also analyse their concurrent appearance with beads. I anticipate the results being helpful for the interpretation of the practical function of gombíky and questions concerning their social meaning.

4.2.1 The number of gombíky in graves

On average, gombíky occur in Mikulčice graves slightly below the limit of two artefacts per grave; the ratio of graves containing one gombík to those with two of these artefacts is relatively even (Tab. 18). In the case of two artefacts in one grave, the gombíky usually form a typologically identical pair; in rare cases, graves contained two gombíky that did not form a pair (lost gombík, damage to a paired artefact, pairing was not important for social/chronological reasons?).²⁵ Due to the sheer preponderance of these two quantitative categories, I believe they represent the standard way that the gombíky were used. I interpret multiple pairs of gombíky or groups of three gombíky in a functional position (definition in the following Chapter 4.2.2 *The position of gombíky in graves*) as proof of multiple articles of clothing with applied gombíky. If more than four gombíky occur in a grave (five Mikulčice graves: 318, 396A, 472, 505 and 118/VI), one or more of these artefacts typically occur in a non-functional position. The only exception is grave 318 with the application of three polyhedral gombíky in the middle of the chest

24 ‘Eliteness’ can be defined in a variety of ways. Comparing individual types of soldered decoration and chasing is important for differentiating the difficulty of producing gombíky decorated in this manner within the Mikulčice residential area, but this fine division becomes too detailed when comparing Mikulčice with other settlements. Therefore, in Chapter 4.4.1 *Gombíky as representatives of ideological fusion*, I expand the typological scale of elite gombíky to all groups with soldered decoration and chasing lacking a unified form as the result of serial production.

25 We can probably expect the use of non-paired gombíky in less elite graves, where the survivors did not have such a rich selection when assembling the grave goods.

TAB. 18 | Average number of gombíky in one grave in Mikulčice-Kopčany agglomeration with hinterland.

Number of gombíky in one grave	Number of graves from acropolis	% from all graves with gombík	Number of graves from extra-mural settlement	% from all graves with gombík	Number of graves from hinterland	% from all graves with gombík	Graves, total	% from all graves with gombík
1	47	41%	32	51%	10	30%	89	42%
2	53	46%	21	33%	18	55%	92	43%
2 (paired)	47	41%	21	33%	15	46%	83	39%
2 (non-paired)	6	5%	-	-	3	9%	9	4%
3	8	7%	4	6%	3	9%	15	7%
4	4	3%	5	8%	2	6%	11	5%
5	3	2%	-	-	-	-	3	2%
6	1	1%	1	2%	-	-	2	1%
Total	116	100%	63	100%	33	100%	212	100%

TAB. 19 | Typological groups of solitaires and two (paired and unpaired) gombíky according to the finds from the acropolis and extra-mural settlement of the Mikulčice-Kopčany agglomeration.

Typological group of gombík /number of gombíky in grave	1	%	2	%	2 (paired)	%	2 (unpaired)	%
Undecorated, total	2	4%	8	6%	8	100%	-	-
With chased decoration - vertical ribbing	4	9%	4	3%	4	100%	-	-
With chased decoration - plant ornament	19	39%	57	43%	53	93%	4	7%
With chased decoration - zoomorphic ornament	4	9%	4	3%	3	75%	1	25%
With chased decoration - anthropomorphic ornament	-	-	2	1%	2	100%	-	-
With chased decoration - geometric ornament	4	9%	11	8%	10	91%	1	9%
With chased decoration, total	31	66%	78	58%	72	92%	6	8%
With soldered decoration - full-surface granulation	2	4%	14	10%	10	71%	4	29%
With soldered decoration - coarse sparse granulation (including polyhedral shaped)	1	2%	11	8%	10	91%	1	9%
With soldered decoration - 'poppyseed' granulation	5	11%	15	11%	14	93%	1	7%
With soldered decoration - filigree wires	1	2%	8	6%	8	100%	-	-
With soldered decoration - with filigree strips (two-layered)	-	-	-	-	-	-	-	-
With soldered decoration - filigree bosses	5	11%	2	1%	2	100%	-	-
With soldered decoration, total	14	30%	50	36%	44	88%	6	12%
Total ³	47	100%	136	100%	124	91%	12	9%

³ Table note: Graves with multiple gombíky and pairs of gombíky are not included in this analysis. The odd number of paired specimens is due to presumed paired but unpreserved pieces that were omitted from the statistics.

accompanied on the sides by a pair of gombíky with full-surface granulation.

An analysis of the number of gombíky in the grave in connection with their typological classification (i.e. the employed jewellery-making technology) reveals that the ratio of solitary gombík finds and pairs of gombíky is not proportionally even among gombíky with soldered decoration and with chasing (Tab. 19). The preponderance of solitary finds in the case of gombíky decorated with chasing could be the result of distortion caused by the omission from the

analysis of graves with more than two gombíky.²⁶ However, several typological groups that deviate from this general description were readily apparent in the find assemblage. Solitary gombíky appear proportionally more often among gombíky with vertical ribbing, zoomorphic ornament and soldered bosses. In the group

²⁶ The most common combination in the case of groups of three gombíky is a set composed of a pair of gombíky with chasing and a solitary gombík with soldered decoration; their inclusion would probably even out the numerical disparity between the two groups.

TAB. 20 | The connection between the number of gombíky in the grave and the construction of the attachment system in the graves from the acropolis and extra-mural settlement of the Mikulčice-Kopčany agglomeration.

Number of gombíky in one grave	Attachment system A	% from all	Attachment system B	% from all	Attachment system C	% from all	Indeterminable	% from all	Total	%
1	15	19%	17	22%	1	1%	46	58%	79	100%
2	54	37%	49	33%	5	3%	40	27%	148	100%
3	9	25%	13	36%	2	6%	12	33%	36	100%
4	12	33%	9	25%	-	-	15	42%	36	100%
5	3	20%	4	27%	4	27%	4	27%	15	100%
6	4	33%	2	17%	4	33%	2	17%	12	100%
Total	97	-	94	-	16	-	119	-	326	

of gombík pairs, in contrast, there is a slight preponderance of gombíky with full-surface granulation, filigree wires and with sparse coarse granulation. The find assemblage does not show a clear connection between the practical characteristics of individual types of gombíky and their numbers in graves. As such, it seems unlikely that it would be possible to assume different quantitative applications of gombíky to clothing according to the jewellery-making technique used to create their surface (and the related size or material). Therefore, changes in the numerical representation of selected types of artefacts in graves could be related to the social meaning of gombíky and to their chronological development.

In contrast, technological variants of the attachment system appear to be of key importance in the functional transformation of gombíky, e.g. fixed or movable (on the typology, see 4.1.4 *The construction of the shell and attachment system*). For comparison, we can look at the attachment mechanisms of pendants known from the Byzantine cultural sphere versus clothing fasteners. Byzantine pendants (pendilia) typically had a movable attachment mechanism, whereas spherical and mushroom-shaped clothing fasteners always had a fixed loop better suited for threading with a textile eyelet. It is therefore possible that the fixed split loops (variants B and C of the attachment system) are related more to their fastening function, whereas movable ring loops secured by a clamp (variant A of the attachment system) indicate their use as pendants. This raised the question of comparing the number of gombíky with both attachment systems in graves (Tab. 20). Fixed attachment systems correspond rather to a deposition of one gombík or even odd number of gombíky in the grave (unpaired artefact, which is sometimes part of a group of more gombíky - perhaps as a result of deposition of more clothing pieces?). However, this phenomenon is not heavily predominant. One possible interpretation is that the trend changed over time - i.e. at one time there truly was a predominance of clothing with a single gombík with a type B respectively C attachment mechanism, but this was not the case all the time. I formulate how

this interpretation falls into the overall development concept of gombíky in Chapters 4.4.8 *Modeling of the relative chronology of Great Moravia gombíky* and 5.1 *Practical function of gombíky*.

4.2.2 The position of gombíky in graves

Since the beginning of the processing of the large central Great Moravian cemeteries, there has been talk of the occurrence of gombíky in the area of the collarbone, i.e. near the neck or on the sides of the skull. The numerical predominance of gombíky found on the upper parts of the torso, the neck and near the skull is truly overwhelming. I call this predominant occurrence a 'functional position', i.e. the location of the gombíky corresponds to their usual application to the clothing in which the deceased was dressed (Tab. 21). And yet, I do not deal with deviations in position that are related to post-depositional processes that occurred during the decomposition of the body²⁷ or were caused by rodents.

The position and number of artefacts in a grave is undoubtedly related to the cut of the article of clothing, a subject to which greater attention will be paid in the summary of this chapter. Naturally also interesting in terms of interpretation is the group of gombíky that were not found in a functional position. It is not always possible to decide whether the atypical position of a gombík is the result of processes following the deposition of the grave unit or whether the artefacts were deposited intentionally in an unusual position. However, in certain cases it is clear that the extraordinary placement of

27 Positional transformations of the skeleton also cause movements in the grave inventory (E.G. PROKEŠ 2007, 17–28), i.e. typically a shift of one of the pair of gombíky or the movement of a solitary gombík as the lone part of the grave inventory. More detailed research of artefact position would be possible during a new excavation of a cemetery with the participation of an anthropologist and with detailed documentation of the find contexts. Despite the existence of photo documentation, a more precise interpretation of artefact position isn't possible in the case of earlier excavations (e.g. Mikulčice).

TAB. 21 | Position of gombíky in graves from the acropolis and extra-mural settlement of the Mikulčice-Kopčany agglomeration.

Position	Number of gombíky	%
Functional position	247	76%
Intentional unusual position	25	8%
Indeterminable	54	16%
Total	326	100%

gombíky was in fact intentional. A typical example is the deposition of gombík(y) in a textile/leather pouch, usually with additional artefacts, e.g. Mikulčice graves 250, 271 (where the pouch in a male grave also contained earrings), 472 and 10/VIII. Likewise, one of the graves with a large number of artefacts from Mikulčice church 3 - female grave 505 - contained a pair of gombíky in a non-functional position. The adult woman was furnished with elite grave goods, among which were six gombíky, including a pair of gold two-layered artefacts. Two pairs of gombíky were clothing accessories and were found in a functional position near the deceased's collarbone. The final pair - exceptionally large and high-quality gombíky with full-surface granulation - were placed by the deceased's left foot and hence were not part of the clothing in which she was buried.²⁸

An interpretation of an unusual form of depositing gombíky can be tied to both the symbolic significance level in the sense of the deposition of offerings and to the level of social meaning in the case of standard grave goods. I assume the first of these in the case of artefacts deposited together in a textile or leather pouch. In my opinion, a hidden deposit suggests an intimate form of personal offering. On the other hand, I see the social aspect in the find contexts of graves containing an above-average number of gombíky, with some of them occurring in a functional position, others in an atypical position. I believe the absence of a pouch is significant, as it would hinder the social performance of the deposited grave goods.²⁹ This is especially apparent in the case of grave 505, where a third pair of gombíky was (apparently loosely) deposited by the woman's foot. In agreement with the theoretical model (HALSALL 2009, 207-208), this type of burial can be interpreted as an example of deliberate emphasis on the importance of the buried individual and the magnitude of the loss caused by their death in the form of a larger number of grave goods.

28 Given that the gombíky were found close together, it is likely that another entire article of clothing was not deposited here, only separate artefacts.

29 It is naturally possible to point out that a potential pouch wasn't captured in the archaeological excavation or that the value of the artefacts placed in the pouch was demonstrated in a specific ritual prior to the deposition of the burial.

4.2.3 Joint occurrence of gombíky and beads in a single grave

The repeated combinations of grave goods forming established collections represent important sources for establishing chronology and reconstructing the appearance of the original clothing (MACHÁČEK ET AL. 2016, 75; CHORVÁTOVÁ 2018, 125-137). Glass beads from necklaces are often associated with the occurrence of gombíky. Both gombíky and beads appear near the upper part of the torso and near the neck and head. In several cases it was possible to demonstrate the suspension of gombíky on necklaces along with glass beads (see 4.1.9 *The detection of textile remnants in connection with gombíky* and 5.1 *Practical function of gombíky*). However, the concurrence of beads and gombíky need not always represent necklaces. Vilém Hrubý interpreted the find contexts of gombíky from grave 25/48 and 33/48 at Staré Město - Na Valách as evidence of beads strung between gombíky (HRUBÝ 1955, 414-415). This element is not unknown in early medieval clothing culture. It is documented from clothing preserved from Asia, the Moščevaja Balka trading station in the Caucasus (IERUSALIMSKAJA, BORKOPP 1996, 46-47; IERUSALIMSKAJA 2012, 61-62) and from Viking fashion, in which fibulae were used instead of buttons (KLEEMANN 1992, 94-99; MARTIN 2000, 226-241). I therefore attempted to verify the extent to which beads and gombíky occur together in Mikulčice graves and what this implies for the clothing culture of Great Moravia. Given the proven occurrence of glass gombíky on necklaces, I also included this typological group of gombíky in the analysis.

The joint occurrence of sheet metal gombíky and beads is documented in 17 graves at Mikulčice cemeteries (Tab. 22). In the acropolis and extra-mural settlement, this is only a fraction of the overall number of gombíky finds. Moreover, sheet metal gombíky found in the same grave as glass beads usually have different features, suggesting that a direct connection between the two groups is probably unlikely.³⁰ In contrast, the percentage representation of the parallel occurrence of sheet metal gombíky and beads rises significantly in the Mikulčice hinterland over a quarter of the total number of all graves with sheet metal gombíky. Roughly one-fifth of the Mikulčice graves furnished with glass gombíky also contained glass beads. However, in absolute figures, this is only seven graves, which corresponds to the overall low occurrence of glass gombíky in a burial context in Mikulčice. As such, we can state that the combination of sheet metal or glass gombíky and beads is a rare phenomenon at the Mikulčice acropolis and extra-mural settlement without an apparent

30 Three of these occurrences are apparently functionally unrelated: a man was found in grave 271 by church 2 in Mikulčice with sheet metal gombíky, earrings and beads in a pouch. Beads were found in an unusual position (in the grave fill) in grave 987 and 1182 by church 3. Beads in another two graves were evidently connected to the simultaneous occurrence of crescents (grave 1 from church 2 and grave 550 from church 3).

Area/typological group of gombíky	Sheet metal gombíky	% from all graves with gombíky	Glass gombíky	% from all graves with gombíky
Mikulčice, acropolis	6	5%	2	2%
Mikulčice, extra-mural settlement	2	3%	3	5%
Mikulčice, hinterland	9	27%	2	6%
Dolní Věstonice	8	12%	26	39%

TAB. 22 | Number of graves with common occurrence of gombíky and beads in Mikulčice-Kopčany agglomeration with hinterland and Dolní Věstonice cemetery.

functional connection, and only the joint occurrence of sheet metal gombíky with soldered filigree rings together with beads increases significantly in the hinterland of the fortified settlement.³¹ The stringing of gombíky on necklaces is not proven in a single case in the agglomeration.

Mikulčice, however, is not a site with a distinctively represented necklace fashion; glass beads appear more frequently away from the central cemeteries. A typical example is the cemetery in Dolní Věstonice, which I chose as a comparative unit (Tab. 22). In the Na pískách field section, more than half of the 48 graves with glass gombíky also contained glass beads. It was possible in at least three graves at this site to identify gombíky as part of an original necklace: besides the aforementioned grave 391/55 with a preserved textile cord (analysed in detail in Chapter 4.1.9 *The detection of textile remnants in connection with gombíky*), this also concerns graves 485/49 and 600/56, in which gombíky and beads were connected by corrosion products. Some of the glass gombíky therefore undoubtedly served as a pendant on a necklace, though this can certainly not be claimed for all finds. At this cemetery, glass beads also appeared in the context of half of the local graves containing gombíky with soldered rings, though in these cases it is not possible to prove their function as a pendant (analyses based on UNGERMAN 2023B). Overall, the beads in Dolní Věstonice are tied more to glass gombíky, including the conclusive suspension of glass gombíky on a necklace.

The analysis of the sites above shows a strong connection between the joint occurrence of gombíky and beads and the elite character of the particular cemetery. While the joint occurrence of gombíky and beads is minimal at central Mikulčice cemeteries, in the hinterland of the agglomeration these artefacts already appear more often in the context of common grave goods, which is also true for the cemetery in Dolní Věstonice. One possible explanation is different fashions within various – socially distinct – communities. However, a typological transformation of gombíky is also evident in connection with the localisation of graves with gombíky and beads. Necklaces thus became part of clothing, always equipped with the ‘most popular’ gombíky, which corresponded to the character of the site at which they were found.

Thus, in the case of the Mikulčice hinterland, they are sheet metal artefacts with simple decoration in the form of soldered rings or without decoration (while glass gombíky in general are not very common here), whereas in the case of Dolní Věstonice, glass gombíky predominate in combination with beads (although sheet metal gombíky with rings also appear here in large numbers, they probably represent a more elite type of jewellery). Chronology could also be involved, as the Dolní Věstonice cemetery was intensively used even after the demise of Great Moravia, which cannot be reliably assumed at the majority of cemeteries in Mikulčice.

4.2.4 Possibilities for interpreting gombík on the basis of intentional data

Intentional data, i.e. data concerning grave goods that influenced the choice of the survivors as part of the burial ritual, are represented in this work by an analysis of the number and position of gombíky in the grave and the co-occurrence of gombíky with glass beads. These data are useful for reconstructing the form and spatial and temporal development of Great Moravian fashion and for illuminating the interpretation possibilities of the practical function of gombíky.

I tracked the number and placement of gombíky in the grave in relation to the potential changes in the design and cut of Great Moravian clothing as published for Merovingian fibulae, whose quantitative and spatial changes have been interpreted as a transition from peplos- to tunic-type garments (MARTIN 1995, 42–47). The Mikulčice cemeteries provided considerable variability in the number of gombíky, the number of which in graves fluctuates from one to six artefacts. However, nearly 90% of gombíky occurred in graves in one or two artefacts, usually in pairs. I believe that this massive representation of a low number of gombíky is sufficiently indicative of their usual number on Great Moravian clothing. Higher numbers then probably indicate the layering of the garments to which the gombíky were applied, or deposits of gombíky away from their functional positions. The different jewellery-making techniques do not mean a significant difference in the overall number of gombíky, with the only exception being the group of gombíky with vertical ribbing and with soldered bosses, which are significantly more common in graves with only a single artefact. The solitary occurrence of gombíky

31 Grave 472 from Church 3 with a combination of elite and non-elite fashion is remarkable and can be interpreted as a rare joint occurrence of three decorated sheet metal gombíky, two glass gombíky and glass beads.

also slightly prevails in artefacts with a fixed attachment mechanism, which I interpret as a structural element related to the function of gombíky as clothing fasteners.

The position of gombíky in graves is relatively homogeneous. Most of the deviations from their deposition in the area of the shoulders, neck, head and chest can be explained by post-depositional processes. Evidence of the deliberate intentions of the survivors is the deposition of one, but more often two, gombíky as part of a pouch with valuables, or the deliberate addition of a multiple pair of gombíky separately in the grave pit. While I see the reasons for the first deposition method in a pouch in a symbolic significance, I would characterise the second 'visible' deposition as evidence of the demonstration of the deceased's social standing. The very fact that the gombíky appear removed from the garment is interesting - were they also worked with independently of clothing in living culture? The more likely explanation so far seems to be that it was a part of a 'dowry' or family wealth kept on its own without being attached to clothing.

While we must rely on analogies in the form of preserved textiles from Northern Europe, Egypt and the Caucasus (THOMAS 1990; IERUSALIMSKAJA 1978; 2012; IERUSALIMSKAJA, BORKOPP 1996; GELJER 1938), on analyses of textile remnants and small amounts of iconography to gain insights into the appearance of Great Moravian clothing, gombíky also partially testify to the form of clothing. Spherical clothing fasteners as known from the Orient were always used for horizontal fastening (cuts in the area of the neck or slits between two parts of clothing).³² These objects did not carry the weight of the garment, but only held the sewn parts together. Since none of the gombíky actually represent a particularly strong artefact that could be significantly stressed by being stretched by the weight of the textile, I believe that gombíky were also used on necklines and slits in the area of the chest, collarbone and neck. In terms of cut, it was probably a loose tunic, because to fasten a fitted garment (e.g. a caftan), several smaller 'buttons' would be needed in the entire area of the chest and abdomen, as is known, e.g. from graves in Birka (ARBMAN 1940, TAF. 93; GELJER 1938, 143, 150, TAF. 33). The tunic apparently had one or two slits in the neckline, which were fastened with textile eyelets and gombíky.³³ The application of gombíky without a fastening function remains for now an unanswered question.

32 On the other hand, fibulae were also used to fasten vertically connected textiles (see the clothing cut of the peplos) or to fasten asymmetrically placed cloaks on the shoulder (MARTIN 2000, 226-241). At the same time, they held a certain weight of the textile, and if they were used functionally, they had to have a stronger construction. The loss of practical function was also manifested in a change in structural strength (MARTIN 1995, 43).

33 ZDENĚK KLANICA took an in-depth look at the possibilities of fastening necklines (1970, 422); TOMÁŠ VLASATÝ (2018) recently conducted a detailed analysis of clothing cuts with the use of gombíky.

Based on the consistent placement of gombíky in the graves and the more or less maintenance of their numbers at the level of one or two throughout the entire period of their occurrence, I do not expect a radical change in the clothing cut, as is proclaimed in the Merovingian environment in connection with the variability of the number and placement of fibulae there (MARTIN 1995, 42-47). Nevertheless, it is evident that gombíky with a fixed attachment mechanism, from which clothing fasteners are probably derived, appear a little more frequently in graves as solitaires. From this, one could cautiously draw the conclusion that during the 9th century the popularity of elite garments with two slits or a lapped neckline (where gombíky would also constantly have a fastening function) was increasing, or the demonstrative suspension of pairs of gombíky with a movable attachment mechanism on the garment was expanding (regardless of the cut of the garment?).

Based on the low concurrence of gombíky and beads, it is unlikely that gombíky were used to suspend bead cords on the chest, as is known on women's clothing from Northern Europe and the Caucasus.³⁴ Beads represent a separate clothing element probably tied to a less elite and rural environment with a chronology loosely moving into the 10th century. The suspension of gombíky on necklaces can be interpreted as an aspect of 'folk' fashion that has only been proven for glass gombíky. The fashion of using a necklace as a 'carrier' for clothing fasteners or spherical jewellery is also typical in the 10th century for the Bijelo-Brdo cultural sphere. Thus, from southwestern Slovakia we have evidence of the suspension of mushroom-shaped ancient Hungarian buttons, vertically divided cast pendants, and perhaps also the necklace application of late sheet metal gombíky, probably of Bohemian provenance (I address this topic in greater detail in Chapters 4.4.4 *Southwest Slovakia*, 4.4.7 *The regional and supraregional occurrence of gombíky* and 5.2 *Social meaning of gombíky*).

4.3 SEX/GENDER AND AGE-AT-DEATH OF INDIVIDUALS BURIED WITH GOMBÍKY

After analysing the gombíky, I compare their technical and technological data and the find context with basic demographic data on individuals buried with gombíky at the cemeteries in Mikulčice-Valy agglomeration and its hinterland. As the authors of model theoretical studies consistently state, components of grave furnishings must be assessed separately for individual age categories and both sexes of individuals buried with them. Age and sex are key biological parameters that influenced both the individual's position in living society and the funeral rite (HALSALL 1996, 11; 2009, E.G. 207; DISTELBERGER 2004, 25-42;

34 For the Caucasus: AJBABIN, CHAJREDINOVA 2009, 118, TAF. 146; IERUSALIMSKAJA, BORKOPP 1996, 46; IERUSALIMSKAJA 2012, 61, 68, 74; for Northern Europe: MARTIN 1995, 43-44; JØRGENSEN ET AL. 1997, 59, FIG. 46 (fibulae); comprehensively in KRUPIČKOVÁ ET AL. 2019, 87-106.

BRATHER 2004, 406–408). The connection of artefacts with their users interpretively refers mainly to the level of the social meaning of the artefact, the identification of which is the aim of this part of the work.

Physical anthropology estimates *age-at-death*. The narrowest age nuances can be captured in childhood, when it is possible, especially in young children, to record growth factors within individual years, although they can be influenced by the degree of stress and strain. On the other hand, a more precise determination of age-at-death in adults is problematic due to the great variability in the aging process and depends to a large extent on the method by which this process is studied (ZAZVONILOVÁ ET AL. 2020A, 259–268, with additional refs.). The most reliable places on the skeleton to determine sex are the pelvis or the skull in adults. As no sufficiently reliable anthropological methods are known yet for children's graves, sex is usually estimated only for adult individuals.

An analysis of the sex and age-at-death of individuals buried with gombíky was conducted using data from the Mikulčice agglomeration with hinterland.³⁵ Sex and age-at-death for the individuals from the Mikulčice cemeteries were determined primarily by Milan Stloukal (STLOUKAL 1963; 1964; 1967; 1969; STLOUKAL, VYHNÁNEK 1976). Revision research and the estimation of age-at-death and sex using new methods was performed on the skeletons found at Mikulčice by the author's collective led by Petr Velemínský (National Museum in Prague) and Jaroslav Brůžek (Department of Anthropology and Human Genetics, Faculty of Science, Charles University); the data for churches 3 and 6 were recently published. An important result of the review research was the detection of individuals over the age of 60 thanks to specially selected methods and identifiers. While M. Stloukal described only six individuals from church 3 in this age category, E. Zazvonilová (et al.) includes 36 individuals from church 3 and 18 individuals from church 6 in this age group (ZAZVONILOVÁ ET AL. 2020B, 88–89). The demographic categorisation of age-at-death has also undergone changes and now works with broader intervals: < 1, 1–4, 5–9, 10–14, 15–19, 20–29, 30–59, 60+ (ZAZVONILOVÁ ET AL. 2020B, 79).

I defined three basic age categories for gombík research: adults, juveniles and children.³⁶ Individuals with age-at-death estimates in the intervals < 1, 1–4, 5–9 and 10–14 were placed in the category of children; juvenile individuals represent the age range of 15–19 years; and the age estimate of 20+ is reserved for adults.³⁷ Based on an anthropological estimate, it was

also possible to distinguish the sex categories of adults; I therefore work with the categories adult male, adult female and adult of indeterminate sex. In the case of children and juveniles, information about sex was supplemented based on gender-specific³⁸ grave goods (for that reason, I use the designation 'sex/gender' in most cases). The main identifier of female gender was the presence of earrings, while male graves were determined by the presence of belt fittings, calf straps, spurs and weapons. All studied categories (sex/gender, age-at-death) were monitored separately for three spatial areas of the agglomeration, i.e. for the central acropolis, the surrounding extra-mural settlement and the hinterland. The data on the location of the grave with gombíky thus complements the spectrum of information related to the interpretation of the social meaning of graves with gombíky.³⁹

4.3.1 Analysis of the occurrence of gombíky by the sex/gender and age-at-death of buried individuals

The categories of adults, juvenile individuals and children were represented in the cemeteries of the Mikulčice agglomeration in approximately the same proportion at the acropolis, in the extra-mural settlement and in the hinterland (together with the peripheral part of agglomeration). However, the find situation of gombíky for individual age categories does not correspond to this state (Tab. 23, 24, 25 in a separate section of long tables after the text).

In graves with adults, gombíky are found to a greater extent only at the acropolis, especially in the cemeteries near churches 2, 3 and 11. In the extra-mural settlement, a more pronounced representation of gombíky with adults is apparent only around church 9 and at Kostelisko. Gombíky are nearly absent from adult graves in the Mikulčice hinterland. On the one hand, it is possible to observe in children's graves a decrease in gombíky from the centre to the hinterland, while on the other hand, the total share of children among individuals buried with gombíky grows markedly (hand in hand with the decrease in the percentage of adult graves with gombíky). Although the overall share of adolescents in all cemeteries is low, this age group consistently maintains a relatively high quality level and high percentage representation of gombíky (albeit in single-digit numbers of graves). Particularly noteworthy is

35 Archaeogenetic research on Mikulčice skeletal material is also currently underway. As the results have not yet been published, they cannot be included in the results of this work.

36 I abandoned a more detailed analysis, following the age intervals used by anthropologists, because it overly fragmented the processed gombíky collection. I also use the data of M. Stloukal within the three mentioned basic age categories.

37 Several multiple graves were identified at the Mikulčice cemeteries. Gombíky were usually archaeologically assigned to one individual and the grave included in the analysis, or they were subsequently discovered bone intrusions that were excluded from the analysis.

38 While sex is a physical determinant of an individual, gender is linked to social and cultural customs in a given period and place. For the period of Great Moravia, we do not encounter differences between sex and gender in grave goods. Individuals whose sex has been estimated to be female tend to be equipped with the corresponding artefacts, as is the case with male individuals.

39 The Mikulčice residential area is traditionally divided into the acropolis, extra-mural settlement and hinterland, which is also used by anthropologists (most recently VELEMÍNSKÝ ET AL. 2020, 387). In my research, I connect the newly defined territory of the peripheral part of the agglomeration to the hinterland - for more details see the *Introduction*.

the fact that nearly a third of the juvenile individuals from church 2 at the acropolis are furnished with gombíky.

The connection between the occurrence of gombíky and the sex/gender of the buried individual indicates a more frequent occurrence in the graves of women and girls (CHORVÁTOVÁ 2009, 14–15). Within the Mikulčice agglomeration with the hinterland, it was possible to estimate the sex/gender of 113 individuals buried with gombíky, i.e. roughly half of them; one-third were males, two-thirds females. Male individuals with gombíky had the highest representation at the acropolis, in the cemeteries near churches 2, 3 and 11; this phenomenon was particularly pronounced among adult males. The share of adult males with gombíky at the acropolis is nearly the same as women with gombíky. Male individuals with gombíky drop considerably in the extra-mural settlement and are rare cases in the hinterland. In contrast, the graves of individuals of the female sex/gender are relatively evenly represented at the acropolis, in the extra-mural settlement and in the hinterland. A difference is then seen in the age-at-death of women with gombíky. While at the acropolis gombíky dominate in the graves of adult women, in the cemeteries in the extra-mural settlement there is an increase in children with female grave goods with gombíky. The graves of girls are then completely predominant in the hinterland, a situation I believe corresponds to spatial and chronological changes in the social meaning of gombíky, which in this manner are manifested as socially sensitive identifiers, as I describe below (see Chapters 4.3.7 *Gombíky as identifiers of social status* and 5.2 *Social meaning of gombíky*).

After processing a general overview of the occurrence of gombíky in relation to the sex/gender and age of the deceased, I will now attempt to expand this analysis and also compare individual categories of technical or technological parameters and the find circumstances of these artefacts (Tab. 26–34 in a separate section of long tables after the text). As important characteristics of gombíky for identifying the significance of the burial (the social environment of the deceased), I chose a combination of anthropological data of individuals buried with gombíky with the following parameters - jewellery-making

technique and its complexity, material used for their production, size category of gombíky and their number in the grave. I primarily work now not with the number of graves with a given type of gombík, but with the number of gombíky, as a combination of several gombík types could occur in one grave.

4.3.2 Jewellery-making techniques applied on gombíky in connection with sex/gender and age-at-death

The basic division of gombíky into specimens with soldered decoration and chasing is relatively homogeneous within the sex/gender and age-at-death groups of individuals buried with gombíky, yet small nuances are an important piece of the interpretive puzzle.

At the Mikulčice acropolis near churches 2 and 3, burials of adult women with gombíky with soldered decoration of extraordinary quality appear in above-average numbers, always as artefacts made of silver, gilded silver or gold, usually also employing complex technology (two-layered, bossed, with ‘poppyseed’ granulation), supplemented by silver artefacts with full-surface granulation. These gombíky are usually found in graves in pairs (except gombíky with bosses) or they are supplemented with another artefact to form a trio (from grave 318 - even not included in statistics due to indeterminate age category). On the other hand, gombíky with soldered decoration do not predominate in men’s graves at the acropolis. They appear in only 7% of the graves and they do not appear in pairs. If we expand this group to include other elite types of gombíky from male graves (e.g. gombíky with vertical ribbing), a group of four men from church 3 buried with small to medium-sized gold gombíky found in the grave in one piece stands out from the assemblage. In two cases these are vertically ribbed gombíky (graves 425 and 580, Fig. 18: 1, 2), in two other instances they are gombíky with chasing in the form of plant ornament made from gold (graves 380 and 490, Fig. 18: 3, 4). We could add to these men a juvenile male with a single gold gombík with ornamental ‘poppyseed’ granulation (grave 300, Fig. 18: 5). Grave 553 also belongs to the group of men with gold gombíky, but



FIG. 18 | Gold gombíky from male graves at church 3.

1 - Mikulčice, church 3, grave 580; 2 - Mikulčice, church 3, grave 425; 3 - Mikulčice, church 3, grave 380; 4 - Mikulčice, church 3, grave 490; 5 - Mikulčice, church 3, grave 300; 6 - Mikulčice, church 3, grave 553. Photo by J. Foltýn.

it contains an identical pair of polyhedral gombíky combining chasing and coarse granulation accentuating the joints of the gombík surfaces; these artefacts have a glass inlay on the lower pole (Fig. 18: 6). In general, male graves at the acropolis have a predominance of gombíky decorated with chasing. If we exclude specimens with vertical ribbing, these are always small to medium-sized artefacts with plant ornamentation, which usually appear in pairs and are typically made of gold or a gilded copper alloy. In contrast, female graves from the acropolis show a smaller representation of gombíky decorated with chasing – not only in terms of percentage, but also in absolute numbers (18 artefacts in female graves, 23 in male graves). At the same time, I consider the analysis to be of rare accuracy, as a sex/gender estimation wasn't possible only with two graves of adult individuals. These female and male elite graves are of key importance for understanding the beginnings of gombík fashion, which I address in greater detail in Chapters 4.3.7 *Gombíky as identifiers of social status*, 4.4.10 *Transformations of gombíky in space and time*, and 5.2 *Social meaning of gombíky*. The representation of juvenile graves is so low that the data cannot be regarded as relevant. To a large extent, children's graves at the acropolis copy the situation with adults. Gombíky with soldered decoration are predominant in the graves of girls in numbers similar to those found with adult women. But compared to the graves of adult women, the graves of girls are furnished with far more gombíky decorated with chasing.

In terms of jewellery-making technique, the image in the extra-mural settlement is somewhat different. Chased gombíky are represented evenly between the sexes/genders and various age groups. The higher occurrence of gombíky with soldered decoration persists among children of the female gender (roughly one to one with chasing). Gombíky with soldered decoration are virtually absent among adults buried in the extra-mural settlement.

There is an apparent upsurge in the hinterland in the fashion for gombíky with soldered decoration, but this effect is due to the high share of gombíky with soldered rings (Fig. 10: 4b), i.e. less ostentatious imitations of elite artefacts, as will be described in more detail, e.g. in Chapter 4.3.7 *Gombíky as identifiers of social status*.

4.3.3 Difficulty of jewellery-making techniques on gombíky in connection with sex/gender and age-at-death

There is a clear connection in the Mikulčice agglomeration between the technological complexity of producing gombíky and the localisation of the cemetery. Variety is especially evident in gombíky with soldered decoration, for which we can consider the most demanding production technology to be the soldering of filigree strips and other components in form of a two-layered specimen (Fig. 10: 5), the

soldering of separately hammered bosses (Fig. 10: 6), and the arrangement of patterns from small 'poppy-seed' granulation (Fig. 10: 3). These impressive types of soldered gombíky occur among the adult population of Mikulčice only at the acropolis, whereas they disappear entirely from adult graves in other parts of the agglomeration and its hinterland. Children's and juvenile graves provide an image that is somewhat shifted – several graves in the extra-mural settlement that can be classified in the *infans* and *juvenis* categories contain gombíky with complicated soldered decoration, specifically at church 6 (4 graves), in Kostelisko (2 graves) and at church 9 (1 grave). Sophisticated types of gombíky with soldered decoration do not occur at all in the hinterland.

Among gombíky with a complicated production process, the type with soldered bosses appears most frequently. Their occurrence is linked especially to adult women from the acropolis and to juvenile and children graves at the acropolis and in the extra-mural settlement. Among other things, richly furnished female grave 505 from church 3 contains a pair of these artefacts (Fig. 10: 6a). From the perspective of evaluating the social meaning of gombíky, we can expect their spread from adults to children and from the centre to the hinterland, which could also confirm the distribution of the appearance of gombíky with bosses.

I generally classify artefacts with full-surface granulation on underlays (Fig. 10: 1), coarse granulation (Fig. 10: 2) and also with soldered filigree wires (Fig. 10: 4) in the group of gombíky with soldered decoration with less demanding production processes. The first two groups are represented among adults at the acropolis. Gombíky with full-surface granulation are always produced here from silver and gombíky with coarse granulation essentially overlap with the group of *lantern* artefacts (Fig. 10: 2a, b).⁴⁰ As such, it can be said that all of the gombíky in this group at cemeteries at the acropolis are presented as elite products. In the extra-mural settlement, gombíky with simple soldered decoration are nearly absent in adult graves (the grave 1766 at Kostelisko contained full-surface granulation gombíky, but decorated with glass inlays), but their occurrence in adult graves in the hinterland changes. Despite the small sample size of only three artefacts, they are all representatives of 'folk jewellery' in the form of gombíky with soldered rings. The image of gombíky with technologically simpler soldered decoration is slightly different with children. In children's graves at the acropolis, there are both elite artefacts made of precious metals of exceptional craftsmanship, similar to those of

40 Formally I classify lantern gombíky from grave 553 among the chased group with plant ornament. Another three elite lantern gombíky were found in grave 318, which is not included in the statistics under adult individuals in Tab. 32 due to an anthropologically indeterminate age-at-death, but it was one of the most important nave-graves in church 3 with size proportions for an adult.

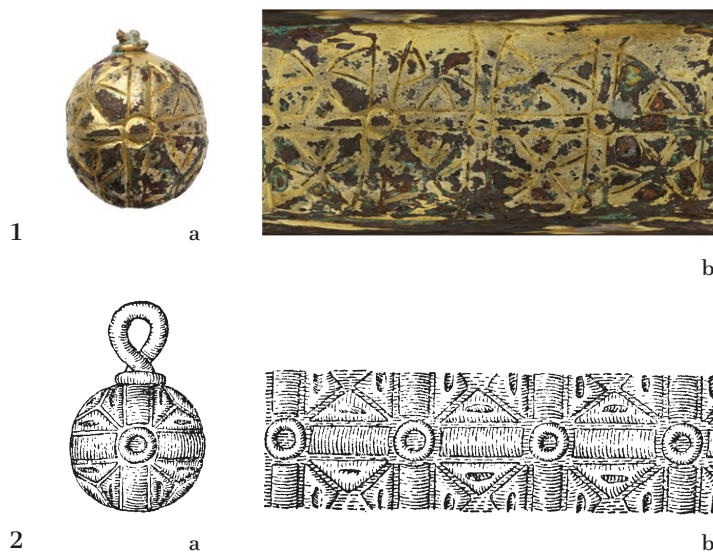


FIG. 19 | Gombíky with a scheme in the form of geometric ornament of eight fields - example of unified clothing component. 1 - Mikulčice, settlement find, Inv. No. 989/57, photo by J. Foltýn; 2 - Skalica, Kopečnica, barrow 12, after Budinský-Krička 1959, Abb. 30: 3.

adults (e.g. the gold pairs from graves 440⁴¹), and here we also find average gombíky, typically with coarse, sparse granulation made of gilded copper alloy. The graves of children in the extra-mural settlement were also furnished with several elite gombíky with bosses and gombíky with poppy-seed and full-surface granulation, including silver artefacts (church 6 and Kostelisko have the main occurrence). The first graves with 'folk' jewellery - gombíky with soldered rings from twisted wire made of a gilded copper alloy

also appear at Kostelisko. 'Ring' variants exclusively occur in the hinterland - from Mikulčice-Panské in silver, but from other sites (Prušánky, Skalica) only in their simple form of copper alloy. Juvenile individuals buried in the extra-mural settlement and the hinterland were not furnished with less demanding types of gombíky with soldered decoration.

As a whole, decoration made by chasing cannot be qualitatively divided without a detailed technological investigation. Gombíky with vertical ribbing are a more easily divisible category. Their most distinctive representatives are the two gold artefacts from male graves 425 and 580 at church 3 hammered to three-quarters of their size from one piece of sheet metal and covered with a collar (construction variant B), with concave walls created by chasing the flats on the surface of the sheet metal (Fig. 18: 1, 2).

41 This pair of gombíky is the only undisputedly elite representative of gombíky with applied rings - it was made of gold and the filigree rings were supplemented with extremely well-crafted twisted and beaded applied wires. I would interpret the pair as a model for the production of cheaper imitations and it is again a candidate for inclusion among imports.



FIG. 20 | Gombíky with simple geometric ornament. 1 - Mikulčice, church 2, grave 133, photo by J. Foltýn; 2 - Kopčany, St Margaret, grave 7, after Baxa et al. 2010, obr. 12a; 3 - Mikulčice, settlement find, Inv. No. 988/57, photo by J. Foltýn; 4, 5 - Mikulčice, church 6, grave 42/VI, photo by J. Foltýn.



FIG. 21 | Gombík with geometric spiral ornament.
Mikulčice, church 12, grave 1526.
Photo by J. Foltýn.

These artefacts cannot be classified as simple production types due to the fact that two-thirds of the shell is hammered from a single sheet of metal. The other gombíky with vertical ribbing are typically made in the classic manner from two hemispheres (convex creation of the walls) from silver or a copper alloy and their occurrence is not high in any age or sex/gender category. Relatively simple production and the representation of this type in (sometimes gilded) copper alloy in several children's graves in the extra-mural settlement and hinterland could testify to the consolidation of another representative of 'folk' jewellery.

Gombíky with geometric ornament are clearly simpler artefacts with chased decoration. This type can be divided further into smaller groups. Gombíky with a shell divided into eight fields (Fig. 19) appear in an interesting concentration in the cemetery by church 2, i.e. the group of children's grave 64, 91, 95 and 136, which otherwise have indistinct furnishings. One pair of artefacts of this type comes from female grave 1958 at Kostelisko furnished with two silver grape earrings. The final pair of artefacts of this type was discovered in the hinterland of the Mikulčice agglomeration in barrow 12 in Skalica (Fig. 19: 2) with a juvenile male whose grave also contained an axe, a stirrup (?) and another pair of gombíky with stylised anthropomorphic motifs. This simple production group of gombíky is completely unified, evidence in my opinion of 'folk' artefacts

that could document serial production of possibly marketed goods.

Another type of gombík with geometric ornament appears in grave 133 by church 2 at the acropolis (Fig. 20: 1). In the hinterland, one other specimen was found in grave 3 by the Church of Saint Margaret (Fig. 20: 2)⁴² and an as settlement find also comes from the acropolis (Fig. 20: 3). These artefacts are actually a simple and schematised alternative of a cordate meander and it is possible that they crudely copy this scheme. A pair of gombíky from grave 42/VI represents an even greater degree of simplification of the same pattern (Fig. 20: 4, 5). In the category of gombíky with geometric ornament, I also include a spiral ornament (Fig. 21) found in three graves at the Mikulčice agglomeration and its hinterland (544 from church 3, 1526 from church 12 and barrow 2 from Skalica). These gombíky also appear at the Na Valách cemetery in Staré Město, where a gilded silver pair was even found in grave 317/49, a possible model for the production of others from a copper alloy.

For the two least numerous types of gombíky decorated with chasing, i.e. with anthropomorphic and zoomorphic motifs, it is difficult to define eliteness and continuity with certain groups of wearers. Both anthropomorphic pairs were made from a copper alloy. A polyhedral pair was discovered in unspecified children's grave 170 from church 3 (Fig. 22: 1), while the second grave was already mentioned above, i.e. barrow 12 in Skalica with the burial of a juvenile male (Fig. 22: 2). The two gombíky from the acropolis show a more demanding production technology as well as a higher quality of decoration, which is not surprising given the occurrence of the second pair at a site in the hinterland. Gombíky with a zoomorphic motif include one artefact found in a settlement context and another twelve found in

42 This artefact is nearly analogous to the gombík from grave 42/VI at church 6; neither pair had a matching double in their grave.

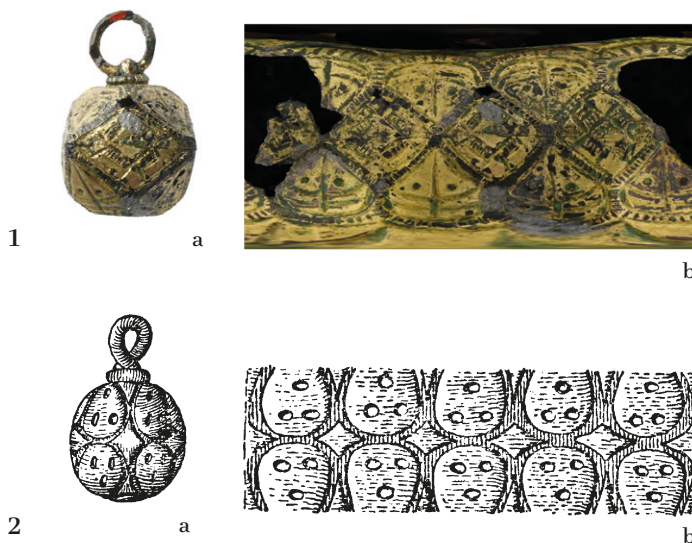


FIG. 22 | Gombíky with anthropomorphic ornament.

1 - Mikulčice, church 3, grave 170, photo by J. Foltýn; 2 - Skalica, Kopečnica, barrow 12, after Budinský-Krička, 1959, Abb. 30: 2.

graves. Their greatest burial concentration – seven artefacts from five graves – comes from the cemetery by church 3. Nine specimens of all zoomorphic gombíky feature a bird set in an arcade, medallion or net (Fig. 23: 1, 2), while other specimens are covered with chasing with stylised plant decoration that changes into a motif of bird and fish/snake heads (Fig. 23: 3, 4). A single artefact from grave 64/IV from the cemetery at church 4 depicts a four-legged animal (Fig. 23: 5).⁴³ These gombíky were made in half of the cases from a gilded copper alloy; they are small in size and a simpler ornament design appears on them. The other half of the group was made of silver, with three of these gombíky (including one settlement find) reaching the large category and featuring a regular ornament layout. These can be described as elite objects. Gombíky with zoomorphic ornament from the acropolis are not predominant in any age group or either sex/gender. On the contrary, it is a diverse composition of individuals, including one adult male (with four specimens), one adult female, a juvenile female and two children (at least one of which is a girl). Another four artefacts come from three graves in the extra-mural settlement (church 6, Kostelisko, Klášteřisko). These were exclusively older children – predominantly girls. The low number of artefacts with zoomorphic and anthropomorphic ornament speaks to the short popularity of their deposition in graves, perhaps due to a change in the emphasis placed on the ornament or their possible late dating. In any case, precisely because of their low number, these gombíky are not suitable for a detailed analysis of a connection to age-at-death and sex/gender categories.

In contrast, the largest group of gombíky from Mikulčice are chased artefacts decorated with plant ornament. This group includes a full palette of schemes – an arcade (Fig. 12: 1), cordate meander (Fig. 12: 2), medallion (Fig. 12: 3), net scheme (Fig. 11: 4) and even a variety of unique unclassified schemes (Fig. 12: 5). It also contains the broadest possible variability in quality, size and material. Gombíky of this type occur with both sexes/genders and in all age-at-death groups, though not in the hinterland. Here, the number of gombíky with plant ornament is significantly reduced, and this form of decoration disappears completely in adult individuals. On the other hand, the large-scale occurrence of gombíky with plant ornament is apparent at the acropolis. This concerns both the absolute number of artefacts (72) and the percentage representation in graves, which varies around one third of the total number of graves with gombíky. Although the percentage situation is the same in the extra-mural settlement, in absolute numbers one can see a great decrease in the graves of adults (a total of five artefacts from four graves). The most popular schemes at acropolis and extra-mural settlement are the arcade with 45



FIG. 23 | Gombíky with zoomorphic ornament.
 1 – Mikulčice, Kostelisko, grave 1729; 2 – Mikulčice, Klášteřisko, grave 1314; 3 – Mikulčice, church 3, grave 675; 4 – Mikulčice, church 3, grave 508; 5 – Mikulčice, church 4, grave 64/IV.
 Photo by M. Bárta, model calculation by J. Šindelář.

43 For years the motif was interpreted as a depiction of a ram (POULÍK 1975, 93); for the new detailed interpretation of the motif, see KOHOUTKOVÁ 2008, 93–95.



FIG. 24 | Gold undecorated gombíky.

1 - Mikulčice, church 2, grave 2032, photo by M. Bárta;
2 - Mikulčice, church 2, grave 71, photo by J. Foltýn.

artefacts in 28 graves, followed by the cordate meander, which was found in 16 graves on a total of 26 artefacts. Medallion and net schemes occurred in smaller numbers. Motifs bordering on plant ornament appear in rare cases, e.g. stylised decoration supplemented with a zoomorphic fish/snake motif (grave 508 at church 3) or a geometrised cordate meander (grave 42/VI from church 6 and grave 3 from the Church of Saint Margaret cemetery). The main types of schemes are not represented evenly at the Mikulčice cemeteries, with the differences being apparent mainly at the acropolis and in the extra-mural settlement. At the acropolis, the cordate meander scheme is typical. Another shift occurs when moving to the extra-mural settlement. The cordate meander disappears entirely from adult graves, and only one occurrence can be attributed to the arcade scheme in the grave of a young woman near church 6.⁴⁴ The cordate meander also decreases in children's graves, where, however, the arcade scheme persists, specifically in the cemetery by church 6, but also at Klášterisko and Kostelisko. I would venture to interpret this situation not only as evidence of a change in the social meaning, but also of chronological development. This interpretation is based

on the principle of the spread of artefact imitations from the highest nobility among the broader elite and other social groups. As such, the change in plant ornament schemes could also reflect a trend moving from the acropolis to the extra-mural settlement. I address this topic further in Chapter 4.3.7 *Gombíky as identifiers of social status*. Due to the low occurrence of plant ornaments arranged in other schemes, it is not possible to work with them in a similar way.

Undecorated sheet metal gombíky (Fig. 9) were found in 14 graves in Mikulčice. All of them can be classified among technologically simple artefacts. However, the four small gold artefacts discovered in a children's graves by church 2 (Fig. 24) stand out from the category of non-elite artefacts due to their production material. The only undecorated silver specimen (no longer existing) known to me from the Mikulčice assemblage of gombíky comes from grave 512 at church 3, in which an adult woman was buried. Other undecorated gombíky from the Mikulčice agglomeration were made of gilded copper alloy. An adult woman was buried in only one grave with a gombík of this type (Skalica, barrow 4, grave 3); all of the others belonged to children.

44 It is the only grave of an adult with gombíky from this cemetery, 118/VI



FIG. 25 | Pair of gold two-layered gombíky - the most opulent Great Moravian gombíky found in grave 505.
Photo by J. Foltýn.

4.3.4 Gombík material in connection with sex/gender and age-at-death

Material – the metal used in the production of sheet metal gombíky – is another important identifier of the social status of individuals buried with gombíky. In the Great Moravian milieu, gold is associated exclusively with the highest elites, which is corroborated by the fact that gold Mikulčice gombíky were always found in graves at the acropolis. The typical recipient of a gombík made of the most precious metal was an adult man – this was the case in five graves from the cemetery at church 3, which usually contained one gombík (grave 380, 425, 490, 580, Fig. 18: 1–4), in one case a pair of gombíky (grave 553, Fig. 18: 6). The predominance of male graves with gold gombíky is complemented by a juvenile male individual (grave 300) (Fig. 18: 5). Most of the gold gombíky are classified as small artefacts. Typologically, there were gombíky with vertical ribbing in two graves, with chasing in the form of plant ornament in two graves, as well as a solitary gombík with ‘poppyseed’ granulation and a pair of gombíky with a rare combination of coarse granulation, chasing and glass inlays. I see a strong social subtext in the share of gold in the graves of the male nobility, enhanced by the appearance of a gold gombík with vertical ribbing in grave 580 – the most important interior grave in church 3 (Fig. 18: 1). Three female graves also contained gold gombíky – in two cases these were the graves of adult women, the other the burial of an older girl. Adult women with gold gombíky represent the best-furnished female graves at the acropolis. Grave 505 has already been mentioned several times above and its two-layered gold gombíky represent the pinnacle of early medieval jewellery found in Central Europe (Fig. 25). Grave 318 was situated in the right nave of the interior of church 3 and is the only female grave from this main church area (age category and gender were estimated based on archaeological context). The woman was buried with three gold polyhedral gombíky with glass inlays (Fig. 26: 1), which we know in many imitations. Several graves with similar gombíky made of gilded copper alloy were found directly in Mikulčice (grave 271 and 498, Fig. 26: 2, 3), but also in other cemeteries (e.g. Břeclav-Pohansko – Fig. 26: 4; Rajhradice – STAŇA 2006, 172, OBR. 57: 119). An older girl from grave 440 was buried with a pair of gold gombíky, also mentioned above, which are a luxurious analogue to gombíky with soldered rings (Fig. 27: 1) and may have served as a model for the production of numerous other artefacts (Fig. 27: 2). It is clear from an overview of the gold gombíky that they may have become a typological model for a whole range of derivative artefacts. Both gombíky with vertical ribbing and polyhedral (lantern) artefacts are known in less elaborately processed and technologically simplified variants made of silver or gilded copper alloy; gombíky with soldered rings became popular ‘folk’ jewellery. Chasing, on the other hand, moved from isolated gold artefacts to the shell



FIG. 26 | Gold polyhedral gombíky from grave 318 inside church 3 and their imitations.

1 – Mikulčice, church 3, grave 318, photo by J. Foltýn;
 2 – Mikulčice, church 2, grave 271, photo by J. Foltýn;
 3 – Mikulčice, church 3, grave 498, photo by M. Bárta;
 4 – Břeclav-Pohansko, church 1, grave 205, photo by M. Bárta.

of silver gombíky and apparently dominated stronghold fashion for a certain amount of time.

As a raw material for the production of gombíky, silver is again found most often at the acropolis, where on average half of all gombíky are silver artefacts. Their representation by age and sex/gender is not equal. The graves of adult women form a significant group typically containing gombíky with soldered bosses, possibly with chasing in the form of plant ornament or gombíky with full-surface granulation. For men, the silver material is partly replaced by gold, but also by copper alloy; these materials, on the other hand, are found in smaller quantities in women’s graves at the acropolis. Compared to adults, a higher share of silver in children’s graves



FIG. 27 | Gold gombíky with soldered filigree and granulation from grave 440 from the cemetery at church 3 and example of their imitation.

1 - Mikulčice, church 3, grave 440, photo by J. Foltýn; 2 - Mikulčice, Panské, grave 76, photo by M. Bárta.

is found with boys. Girls had a higher average number of gombíky in graves in a more varied typological range (including soldered specimens that were not found in boys' graves). Silver was also the most common material for gombíky in juvenile graves at the acropolis. Sites in the extra-mural settlement also yielded a large assemblage of silver gombíky. However, their occurrence was selectively defined by age category - mainly children, boys and girls, were buried with silver gombíky. A decrease in the share of silver is observed in extra-mural settlement in the age category of adults, where only one silver specimen falls. In the hinterland, silver gombíky were found in three children's graves - a couple of silver specimens with rings come from Panské, at Kačenáreň in Kopčany there was one specimen with soldered bosses, and one silver gombíky also comes from Prušánky 2 (grave P220). Several gombíky from gilded silver are known from the Mikulčice agglomeration and hinterland, exclusively from the acropolis. But this technology remained marginal, probably due to the high value of silver, which was popular even without other demanding surface treatments.

Copper alloys were the most common material for the production of Mikulčice gombíky. This group can be further divided into gilded artefacts and those without a gilded surface. There is a strong predominance of gilded gombíky at the acropolis and in the extra-mural settlement, with the unglilded variant occurring in only single-digit numbers. The share of gilded artefacts is reversed in the hinterland, where there is instead a predominance of unglilded gombíky made from a copper alloy.⁴⁵ The gilded copper alloy is dominant among adults in the extra-mural settlement. These gombíky appeared more in male graves

at the acropolis, where women had a higher share of silver gombíky. Their occurrence among children is balanced at the acropolis and in the extra-mural settlement; the sex/gender difference at the acropolis is opposite the situation found with adults - in percentage values gilded copper alloy artefacts predominate in the graves of young girls and silver is more common among boys. Gombíky decorated with chasing from copper alloys exist in a broad typological palette and occur at essentially all cemeteries at the acropolis and in the hinterland. Their greatest numbers occur around churches 2, 3, 6, 11 and 12 and also in Kostelisko. Artefacts with soldered decoration appear at the same locations and increase at Klášterisko (gombíky with rings). However, the share of artefacts with soldered decoration from copper alloys is lower than with gombíky decorated with chasing from the same metal. It can also be noted that gombíky made from copper alloy lack any distinctive jewellery-making features as commonly seen with their gold and silver counterparts. Gombíky models made from precious metals are available for all types, thus confirming the logical assumption that copper represented an affordable and easily-worked material used as an alternative to precious metals particularly in less elite milieus.

Cast gombíky, sporadically found in Moravia, were also made from copper alloys. I am aware of only a single artefact - an atypical massive cast gombík with an offset collar with a loop (i.e. not a classic mushroom-shaped cast gombík) from the Mikulčice hinterland from grave 78 at the Prušánky 2 site. The grave contained the burial of a child with female grave goods in the form of less elite 'Danubian' jewellery.

Glass gombíky (Fig. 2: 1) also occurred in the Mikulčice agglomeration and hinterland, mostly in children's graves throughout the entire area, including three graves of small children by church 3 (grave 472 atypically combined elite and non-elite fashions). Likewise, the majority of glass gombíky in the extra-mural settlement were found in children's graves and in only two adult graves, coincidentally in two

⁴⁵ This is a macroscopic survey or, more often, a reconstruction of properties based on documentation - the majority of Mikulčice gombíky not made of precious metals were lost in the fire. I described some of the gombíky from the hinterland based only on their prior publication. It is possible that the original gilding flaked off, which could be recognised microscopically, or that information on the material composition was not entered correctly in the record.

from church 9 (including male grave 128/IX – glass gombíky are otherwise linked to the graves of young girls and women). The high number of glass gombíky come from children's graves in the hinterland, where they made up nearly a third of all gombíky in children's graves. In contrast, glass gombíky are completely missing from adult graves in the hinterland. This presents an opportunity for comparison with the Dolní Věstonice cemetery with the largest assemblage of glass gombíky, though for the most part anthropological data is missing for the individuals buried in the local graves. However, when data exist or the dimensions of the grave pit rule out the burial of an adult, the data point to a predominance of minors buried with glass gombíky (analyses based on UNGERMAN 2023B).

Another alternative of the occurrence of 'gombíky' is the cast lead artefacts from grave 10/VIII by church 8 (Fig. 3: 3c; KOUŘIL 2008, 71–73). Finds of similar artefacts interpreted as pendants are known from several sites and have been described several times and chronologically determined as representatives of a typologically significant but apparently short-lived horizon of graves at the turn of the Great Moravian and post-Great Moravian periods (UNGERMAN 2023A, 245).

The last and somewhat curious representatives of metal spherical artefacts from Mikulčice are iron gombíky, with the descriptor 'curious' being used for the reason that these artefacts, without exception, no longer exist physically, and in the lists of finds they are always drawn in a corroded tangle preventing a closer identification of their form. Although I have kept them among gombíky in my overview, it is entirely likely that they were in fact rattles (compare with UNGERMAN 2023, 273). Seven of them are known from six graves in Mikulčice (a settlement find in one case). Only one came from the burial of an adult – a woman – while the other finds were from children's graves by church 2 and 11, at Klášteřisko and especially at Kostelisko (3 graves).

4.3.5 Gombík size in connection with sex/gender and age-at-death

The size of gombíky varies considerably depending on the location in Mikulčice, with fluctuations also tied to age-at-death and sex/gender. It should be noted that on average the size of two-thirds of gombíky could be evaluated, which is less than for most of the other recorded technical data. The greatest number of gombíky in the large size category were found at the acropolis; in fact, only two graves with large gombíky were located outside the acropolis (grave 1314 in Klášteřisko and 11/VII at church 7). There is a group of adult and juvenile women at the acropolis with a significantly greater number of large gombíky than other demographic categories. In contrast, predominantly small but also medium gombíky appear in the graves of adult males, a phenomenon to a certain extent related to

the high occurrence of small gold gombíky in male graves at the acropolis. On the other hand, female graves at the acropolis were furnished mostly with silver gombíky, typically in the category of large artefacts. The material composition of gombíky in children's graves is also related to their prevailing size. This is evident with boys from acropolis, the group mostly furnished with large gombíky, which corresponds to the higher occurrence of silver artefacts in their graves. Compared to boys, the graves of young girls contained a percentage lower number of silver gombíky and instead have a predominance of mostly smaller copper alloy gombíky. The less number of large specimens could even reflect the social reality that the girls were deliberately furnished with smaller gombíky made of inferior metal. This situation also seems to be supported by the find circumstances in the extra-mural settlement, where all boys' graves are furnished with medium gombíky, while girls' graves contain mainly small artefacts, this time with the same proportional representation of production material (silver and copper) for both sexes/genders. However, social meaning must be deduced with caution, since this interpretation is based on a limited number of children's graves in which it was possible to determine the gender (coincidentally, finds of large and medium-sized gombíky are relatively prominent in undetermined graves).

Changes in the size of the gombíky can therefore be convincingly related to a change in production material, which I interpret as a combined socio-chronological parameter, which I address below, especially in Chapters 4.3.7 *Gombíky as identifiers of social status* and 5.2 *Social meaning of gombíky*.

4.3.6 Number of gombíky in grave in connection with sex/gender and age-at-death

On average, gombíky occur in Mikulčice graves slightly below the limit of two artefacts per grave; while the occurrence of one artefact is also common, there is a slight preponderance of identical pairs of gombíky. From attempts to track the dependence of the number and pairing of gombíky on the age and sex/gender of the individuals buried with them, two more significant clusters emerged. First, there is a slightly higher average number of gombíky per grave with girls and women, which is caused on the one hand by the fact that the accumulation of a significantly higher number of gombíky (4–6) appeared more often in women's graves, but the result also reflects the slightly higher occurrence of graves with a single gombík among men. The sex/gender delineation of the higher incidence of single-gombík graves in the male population applies to both adults and juveniles. The second cluster represents a decreasing share of gombík pairs in among two pieces of gombíky. While more than two-thirds of artefacts have their paired gombík at the acropolis, this figure drops to half in the extra-mural settlement and

only a third in the hinterland in graves of adults (the high percentage of paired gombíky is caused by counting pairs from graves furnished with more than two gombíky). Both described clusters are apparently related to socio-chronological processes. While one gombík in the graves of men at the acropolis may be related to the beginnings of the gombík fashion of the highest elites, unpaired artefacts from the extra-mural settlement and the hinterland in graves of adults may, in contrast, be evidence of the gradual spread of elite fashion to the lower social classes, for whom stricter clothing rules reserved for the elites did not play a role. Multiple numbers of pairs or a higher number of gombíky generally occur in children and juveniles in all parts of the site, in adults significantly more at the acropolis. Deviations from the average can also be explained in some cases by the small number of analysed graves in a given group combined with some other extraordinary aspect (usually one grave furnished with a large number of gombíky will affect the number of an entire small group).

If the richness of the grave goods is related to the importance of the buried individual (HALSALL 2009, 207–208), the multiple numbers of pairs of gombíky can be interpreted as the intention of the survivors to emphasise the significance of the buried individual and the magnitude of their death. Since gombíky were primarily clothing accessories, this could have been accomplished by layering the clothing in which the deceased was laid to rest.⁴⁶ As such, I venture to conclude that the number of gombíky corresponding to one layer of clothing is one or two artefacts. The application of only one gombík appears more often among men, but otherwise sex/gender and age differences are not significant. Adding additional articles of clothing (with gombíky) to the grave increases the number of gombíky in the grave, possibly with the aim of emphasising the importance of the deceased, or rather the magnitude of their death (the distinct clothing of the deceased in ‘winter’ burials remains a hypothetical question). Depositing multiple pairs of gombíky separately in a ‘non-functional’ position had the same meaning in some cases, with Mikulčice grave 505 being the most significant. The adult woman was furnished with probably the most elite grave equipment in her sex/gender (and chronological) group from Mikulčice as a whole, including six gombíky, namely two two-layered gold and two pairs of silver gombíky.⁴⁷ Two pairs were clothing accessories and were found in a functional position near the deceased’s collarbone. The final pair – gombíky with full-surface granulation – was placed by the deceased’s left foot and hence was not part of

the clothing in which they were buried. Instead, this represented a way to express the importance of the buried individual for the community.

4.3.7 Gombíky as identifiers of social status

Upon analysing gombíky in relation to the demographic characteristics of the individuals buried with them, several striking clusters of data appeared in the processed assemblage represented by specific types of artefacts linked to specific age-at-death and sex/gender categories of their wearers. In my opinion, these groups are a reflection of individual social groups, which are also variable over time. First, I would list a group of men with gold – usually unpaired and small – gombíky from the acropolis. There is also a significant group of adult (or juvenile) women and several girls from the acropolis furnished with silver gombíky with elaborate soldered decoration, usually bosses, a group ‘led’ by female grave 318 and 505, which were furnished with multiple pairs of luxurious gombíky, including gold artefacts. There are then separate groups of wearers of various types of gombíky decorated with chasing in the form of plant ornamentation, the popularity of which ‘spills over’ between age and sex/gender groups at the acropolis and in the extra-mural settlement. And finally, there are groups of gombík wearers of a non-elite character, who appear mainly in the hinterland (gombíky with soldered rings), but also at the acropolis represented by several children’s graves (gombíky with chasing in the form of geometric ornament, glass gombíky).

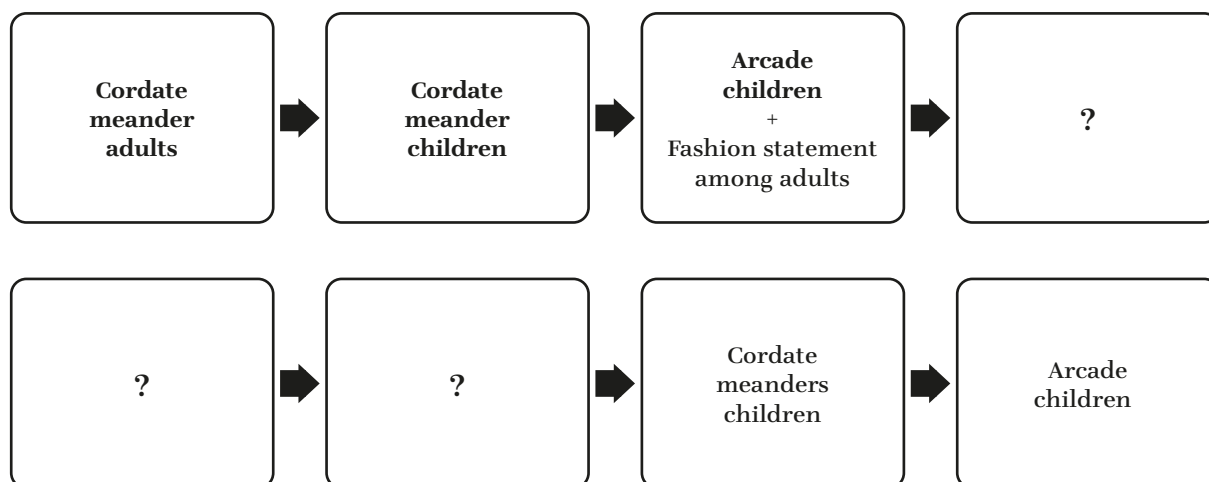
How can we create a meaningful image from these groups capturing the former reality? I will try using the theoretical model mentioned in the introduction, working from the premise that clothing trends spread from adults to children and from the centre to the periphery (from the nobility to the lower social classes; UNGERMAN 2005, 716–717); and I will try to demonstrate this assumption using gombíky finds.

The key graves of the Mikulčice acropolis were usually furnished with gombíky – this is the majority of graves inside church 3, but also several grave units with extraordinary furnishings in the cemetery area. It is here that we can look for the bearers of new trends, the highest elite, whose fashion was subsequently imitated by other social groups. This top elite must have had extensive diplomatic contacts and access to imports, possessed precious metals, and had access to the best craftsmen in their community. As a rule, wearers of gold gombíky from the acropolis meet these parameters – they have gold at their disposal, some items of furnishings suggest imports (including gombíky), and artefacts in their grave inventory are of exceptional craftsmanship and artistic quality. I am specifically referring to a group of men with gold gombíky and two women also furnished with gold gombíky (grave 300, 318, 380, 425, 490, 505, 553, 580). Trends spread from these individuals (the social elite) to the broader nobility

46 After all, clothing had considerable value in its time even without metal accessories, but these aspects of the burial rite are impossible to track in our climate.

47 At the very least two-layered pairs, but perhaps also gombíky with full-surface granulation divided by filigree can be designated as artefacts of extraordinary craft and artistic value. If I wanted to point out certain gombíky from Mikulčice as imports, the choice would preferably fall on these two pairs.

TAB. 35 | Visualisation of the succession of the main types of gombíky with chased decoration in Mikulčice at the acropolis (upper row) and in the extramural settlement (lower row).



and then to individuals at lower social levels. As an example, the gombíky with bosses from grave 505 refer to a broader platform of graves of women with elite furnishings - a group of adult women with gombíky with boss decoration. Subsequently, bosses on gombíky also appear in several graves of juvenile individuals and children, including in the extra-mural settlement.

Another example of the spread of fashion trends is the identifiable distinctive group of adults at the acropolis wearing gombíky decorated with chasing in the form of plant ornament in the shape of a cordate meander. Women are bearers of medium and large silver artefacts, while a male grave contained a medium gombík. Exceptionally, artefacts of extraordinary quality appear that may have served as models (a gombík from grave 328 with the burial of a young woman); but the overall qualitative average is high. A cordate meander is also heavily represented in the graves of children at the acropolis in the form of small to medium gombíky of lower quality than in the graves of adults. In the extra-mural settlement, the cordate meander is only found in children's graves, moreover in a significantly lower number than at the acropolis. Another group of gombíky decorated with chasing in the form of plant ornament in an arcade scheme also emerges. While their bearers in several cases at the acropolis are adults of both sexes/genders, they are mainly found with children. Unlike artefacts with a cordate meander, the arcade scheme now appears on large gombíky in children's graves as well. In the extra-mural settlement, the arcade is known only from children's graves, with the exception of one gombík in the grave of a young woman from church 6 (grave 183/VI).

Consistent with the input model, I believe we are witnessing an interweaving of social and chronological principles in the representation of gombíky.

Each specific trend (in this case, a fashion variant of the gombík) begins at the acropolis with important individuals of adult age and is transmitted from there to other groups of society. But the direct nature of the model is disturbed by the disappearance of artefacts in adult graves, while the furnishing of children's graves is maintained in society longer.⁴⁸ The specific progression of the fashion trend follows from the above example of gombíky decorated with chasing in the form of plant ornament in a cordate meander and arcade scheme. First, gombíky with a cordate meander are deposited in the graves of adult individuals at the acropolis, and subsequently also in children's graves at the acropolis. The motif of the cordate meander was subsequently replaced in fashion by the motif of the arcade. However, after a short time, gombíky were no longer deposited in the graves of adults, but they are still found in the graves of children at the acropolis and in large numbers also in the extra-mural settlement (especially church 6, but also in Kostelisko and Klášterisko). I have attempted to visualise this process (Tab. 35).

A large number of gombíky with chasing in the form of plant ornament made of different metals in varying quality are proof of the fashion trend of a broader circle of Great Moravian elites. Multiple craftsmen also had to be involved in production, which is also documented by macroscopically distinguishable production 'traits', the detailed analysis of which would require intensive collaboration with a jeweller and technologist.

⁴⁸ We consider the graves of children and adults buried within the same cemetery to be buried at the same time during a certain period. If children's graves are equipped with gombíky more than adult's graves, we can assume that the habit of depositing gombíky in the grave was maintained longer in children's graves than in adult graves.

4.4 LOCALISATION AND CHRONOLOGY OF GOMBÍKY

Time and space are the fundamental prerequisites for change, including modifications to material culture; they are quantities defining the distribution of ideas and the emergence of stylistic variants of artefacts. The technological and technical parameters of gombíky also changed in time and space, and their wearers, identifiable by age and sex/gender, also changed. The first part of this chapter is devoted to the temporal and spatial dispersion of gombík-like artefacts from Western Europe to Central Asia. Subsequently, I move my research to Great Moravia and monitor the regional and broader Central European occurrence of gombíky and, based on it, formulate deeper insights into Great Moravian society. I then focus on the temporal changes of gombíky in Great Moravia. At the end of this chapter, I verify their theoretically modelled chronology potential by means of an analysis of the vertical stratigraphy of graves with gombíky from Mikulčice church 3.

4.4.1 Gombíky as representatives of ideological fusion

In the case of gombíky, several impulses likely had an opportunity for regional transformation in Great Moravia. We can first take a look at the functionally similar clothing components used in the Early Middle Ages. While Western and Northern Europe at this time are oriented towards fibulae fashion and do not use hollow sheet metal fasteners or even ornaments,⁴⁹ their finds are concentrated in the area of Southeastern Europe, where their occurrence continues in parallel to Asia. Simple small spherical artefacts with a loop – mostly undecorated and with a diameter up to 1 cm – are known from the Middle East to Central Asia at least from the 8th century (IERUSALIMSKAJA 1978, 183–211). Metal fasteners were also accompanied in parallel by the occurrence of alternatives from organic materials (ABEN 1979, 12–13; IERUSALIMSKAJA 1978, 203; 2012, 75; HARRISON 1986, 262–264; ANDRÁSI 2015, 153–175) and development led to cast metal fasteners for belted caftan-type clothing (Fig. 28: 2; IERUSALIMSKAJA 2012, 144). We also include in the ideological ‘breeding ground’ of gombíky hollow sheet metal pendants with soldered decoration (pendilia), which appear in a number of variants on luxurious Byzantine apparel from the Middle Byzantine period (Fig. 28: 1; BOSSELMANN-RUICKBIE 2024).

In terms of decoration and jewellery-making techniques, the gombíky are congruent with period supraregional fashion. Their ornamentation was characterised by stylised palmettes and other plant motifs arranged in networks, circular medallions or a cordate meander, known in foreign literature as e.g. *Stäbchenrankenzer*, *S-Friese*, *Querband*,

Flächenornament, *Streumuster*, *dreipaßförmiges Ornament*, etc.⁵⁰ Based on the details of decorative motifs and gombík patterns, the closest sources of inspiration in their artistic design appear to be imported Central Asian post-Sasanian toreutics (Fig. 28: 3),⁵¹ patterns on Asian and Byzantine silk (Fig. 28: 4)⁵² and the Early Christian church architecture of Dalmatia and Northern Italy (Fig. 28: 5; IERUSALIMSKAJA, BORKOPP 1996; BIER 2013). Oriental toreutics are also the closest analogy for the technology of ornamental chasing of sheet metal, whereas soldered decoration in the form of the application of filigree wires and granulation comes from the Byzantine cultural environment (OTTENWELTER ET AL. 2020, 20). The limited range of proven jewellery imports and the unclear scope of silk imports, in combination with the complete absence of archaeologically discovered decorative toreutics in Great Moravia and the considerable distance from the nearest stone churches with the application of decorative stonework elements indirectly suggest the migration of craftsmen familiar with fashion motifs and proven jewellery technologies, and also the rich diplomatic-political fusion of European elites, including those of Great Moravia.⁵³

It is not known how deeply the already ideologically consolidated impulses penetrated Moravia and in what it is possible to see a unique Great Moravian style. On the basis of the current state of knowledge, the most likely origin of hollow sheet metal decorative fasteners appears to be outside the territory of Great Moravia (Tab. 36). We know several finds of sheet metal spherical pendants – smooth or with soldered decoration – from the Balkans in the second half of the 8th century and the beginning of the 9th century, and these could represent a model for Great Moravian gombíky. The disturbed cemetery in Brestovac provided a gold undecorated ‘gombík’ (*kugelförmiger Anhänger*) with a high loop secured by a ring from beaded wire of considerable dimensions (height with loop 2.7 cm, diameter 1.4 cm) (Fig. 29: 1). A decorated variant from the same site is a smaller gold specimen (height with loop 2 cm, diameter 1.05 cm) with soldered beaded wire and granulation, which has a tall twisted loop (Fig. 29: 2; BÜHLER 2014, 24–25, TAF. 11). The finds from the cemetery are generally dated by typological-chronological analysis to the final third of the 8th and the beginning of the 9th century, when they were apparently deposited in the graves (BÜHLER 2014, 173–202). We can consider these artefacts – together with the well-known example of a pair of gold

49 The garments of the Frankish Empire are based on the tradition of wearing clothing fibulae; MARTIN 2000, 226–241.

50 For foreign terminology, see BÜHLER 2014, 35, 48, TAF. 18: 1; LENNARTSSON 1997–1998, 448, 465.

51 Known in Central Europe closest to Great Moravia from the hoard from Sănnicolau Măre (today’s Romania), see e.g. BÜHLER, FREIBERGER 2018A, 2018B; in general, on Sasanian toreutics, e.g. MASIA-RADFORD 2013.

52 The beginnings of Great Moravian jewellery-making were also linked to an Avar origin, see Szóke 1992a, 862–863; for a critical view, see UNGERMAN 2005, 716; UNGERMAN 2017, 27.

53 For a more detailed look at the subject, see KRUPIČKOVÁ 2020, 299–301.



1a



1b



2a



2b



3a



4a



3b



4b



5a

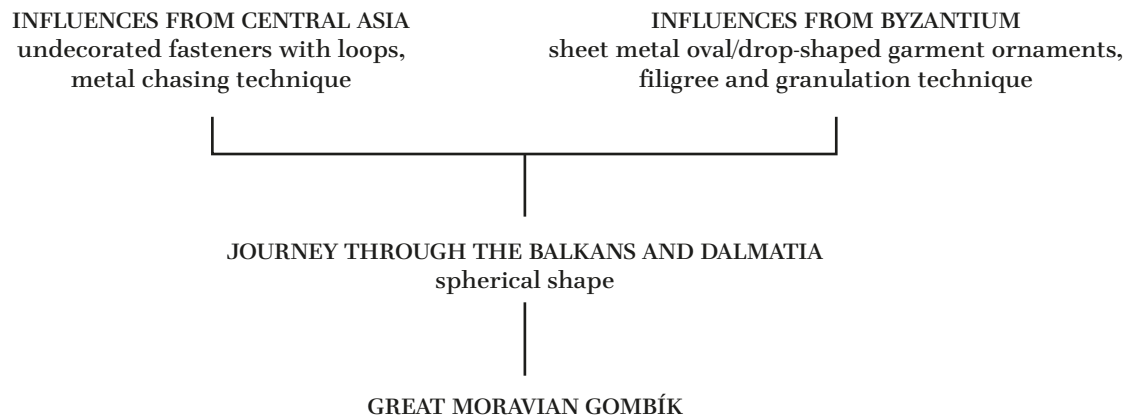


5b

FIG. 28 | Source of inspiration for gombiky? Functional, technological and decorative models. 1a – Metal pendentia on the dress of Empress Theodora, mosaic from the Basilica of San Vitale, Ravenna (Italy, 547); 1b – pendentia from the Preslav Treasure (Bulgaria, 10th century?); 2a – kaftan from Moščevaja Balka site (Russia, 9th century); 2b – detail of kaftan fastener from Central Asia from the 9th/10th century; 3a – post-Sasanian toreutics with palmette motifs (Iran, c. 600); 3b – post-Sasanian toreutics with motif of bird with drop (Iran, 6th -7th century); 4 – silk with medallions from the Moščevaja Balka site (Russia, 9th century); 5 – part of front stone chancel screen (northern Italy, 8th century).

1a – Photo by P. Milošević (2015), CC BY-SA 4.0, Wikipedia, available online: [https://en.wikipedia.org/wiki/Theodora_%28wife_of_Justinian_I%29#/media/File:Theodora_mosaic_-_Basilica_San_Vitale_\(Ravenna\)_v2.jpg](https://en.wikipedia.org/wiki/Theodora_%28wife_of_Justinian_I%29#/media/File:Theodora_mosaic_-_Basilica_San_Vitale_(Ravenna)_v2.jpg); 1b – photo by S. Steidel, Archiv der LEIZA Mainz, the artefact is a part of collection of Archaeological Museum Veliki Preslav (Bulgaria); 2a – after Ierusalimskaja, Borkopp 1996, 21; 2b – Abegg-Stiftung, Riggisberg, Inv. No. 5357, photo by C. von Virág, © Abegg-Stiftung; 3a – Miho museum, H-35.9 D-15, photo by Miho museum, available online: <https://www.miho.jp/booth/html/artcon/00000492e.htm>; 3b – Christie's archive, sold in auction 7428, photo by Christies, available online: <https://www.christies.com/en/lot/lot-4979532>; 4a, b – after Ierusalimskaja, Borkopp 1996, 63, 75; 5a, b – after Bühler 2014, Taf. 18: 1.

TAB. 36 | Scheme of the origin of gombíky.



‘gombíky’ with granulation on the lower hemisphere from Trilj (Fig. 29: 3; PETRINEC 2009, 160–162; on the dating in detail, see UNGERMAN 2005, 715; 2021, 95–96) – as the oldest surviving manifestations of the enlargement and application of soldered decoration on hollow spherical sheet metal pendants/fasteners. As such, they can be described as the probable closest known predecessors of Great Moravian gombíky.

In Great Moravia, gombíky were then enriched with the chasing technique, and new technological procedures were also applied to them, represented by a movable attachment mechanism, holes in the shell (for safety during soldering; OTTENWELTER 2020B, 313) or by sealing objects inside the shells for the sound effect produced when shaken. Gombíky also grew to an impressive size and acquired extraordinary social importance, as reflected in the abundance and variability of their occurrence. In my opinion, gombíky can therefore be described as representatives of ideological fusion, as good examples of the transfer of ideas (S. Brather’s *Ideen*) in the form of trade-political impulses (Tab. 37 in a separate section of long tables after the text). Through them, a regionally specific clothing ornament (S. Brather’s *Stilvariante*) was created, which is represented by gombíky decorated with chasing, which are not found outside the territory with direct Great Moravian cultural influence.



FIG. 29 | Balkan models for Great Moravian gombíky – small gold spherical sheet metal artefacts with soldered decoration. 1, 2 – Brestovac (Chorvatsko), after Bühler 2014, Taf. 11: 2, 7; 3 – Trilj, sv. Mihovil (Croatia), after Petrinec 2009, 199, Bild 55.

Let’s take a look now at the regionally-specific variants of gombíky in Central Europe. In the case of the core territory of Great Moravia, near the centres in the Morava River basin, the homogeneity of the material culture leaves no doubt about regional unity. Current research suggests an imaginary dividing line between the centres and the countryside. Individual localities differed from each other by costume, represented in graves by jewellery and clothing accessories of the ‘Veligrad circle’ at elite cemeteries or less elite ‘Danubian’ jewellery characteristic of cemeteries outside Great Moravian centres (DOSTÁL 1966, 30–66; see also UNGERMAN 2023A, esp. 139 and beyond). However, significant social differentiation can also be anticipated within individual central agglomerations, which over the course of time integrated a broader social spectrum of the population, as also emerged from the analyses of the Mikulčice gombíky described above (see the results of analyses in Chapter 4.3.7 *Gombíky as identifiers of social status*). The following is a comparison of the Mikulčice data with the find circumstances of gombíky from two other Great Moravian agglomerations, i.e. from Staré Město – Uherské Hradiště and Břeclav-Pohansko. Based on the occurrence of gombíky at cemeteries in the Great Moravian ‘countryside’, I will then try to verify the social stratification of the population outside the central agglomerations and what the occurrence of gombíky there indicates in relation to the power structure of Great Moravia.

In addition to the regionally homogeneous but socially stratified sample of the population of the core of Great Moravia, I also focus on gombíky from other regions, mainly in terms of the typological continuity of gombíky with Great Moravia. These are mostly territories close to the core of Great Moravia and which for a certain period were under its power-political influence – i.e. southwestern Slovakia and central sites in Bohemia. This list also includes the territory of western Hungary, which, despite never being an integral part of Great Moravia, shows an unusual similarity of material culture in the area of the Zalavár agglomeration to the south of Lake Balaton.



FIG. 30 | Unified (non-elite) types of gombíky. 1 - Undecorated; 2 - with soldered rings; 3 - with coarse sparse granulation; 4 - with geometric ornament of eight fields; 5 - glass.

1a - Mikulčice, Panské, grave 61, photo by M. Bárta;
 1b - Mikulčice, Panské, grave 96b, photo by M. Bárta;
 1c - Mikulčice, Panské, grave 123, photo by M. Bárta;
 2a - Mikulčice, Panské, grave 78, photo by M. Bárta;
 2b - Dolní Věstonice, Na Pískách, grave 644, photo by M. Fořt; 2c - Dolní Věstonice, Na Pískách, grave 118, photo by M. Fořt; 3a - Mikulčice, church 3, grave 364, photo by J. Foltýn; 3b - Mikulčice, Panské, grave 46, photo by M. Bárta; 3c - Mikulčice, church 3, grave 472, photo by J. Foltýn; 4a - Mikulčice, settlement find, Inv. No. 989/57, photo by J. Foltýn; 4b - Mikulčice, Kostelisko, grave 1958, photo by M. Bárta; 4c - Mikulčice, church 2, grave 64, photo by J. Foltýn; 5a - Mikulčice, Panské, grave 23, photo by M. Bárta; 5b - Mikulčice, Panské, grave 23, photo by M. Bárta; 5c - Mikulčice, Panské, grave 78, photo by M. Bárta.

In order to summarise the results of the social meaning of gombíky in Moravia, I have created a simple schematic division into elite and non-elite artefacts.⁵⁴ This time, the list of elite gombíky includes almost all decorated sheet metal artefacts with chasing or filigree and granulated surface and even undecorated gombíky made of precious metals. On the other hand, unified types of gombíky with the potential of mass production using less complex technology from copper alloys or glass are designated as non-elite. Specifically, these are undecorated sheet metal gombíky, gombíky with soldered filigree rings or simple coarse sparse granulation, gombíky with a geometric ornament of eight fields, as well as glass specimens (Fig. 30).

4.4.2 Central agglomerations of Great Moravia

From the category of Great Moravian centres, I compared gombíky from the cemeteries in the Mikulčice residential agglomeration with the Staré Město - Uherské Hradiště agglomeration and with Břeclav-Pohansko.

The Staré Město - Uherské Hradiště agglomeration appears to be the closest comparative location to Mikulčice. The local elite Great Moravian complex with several church buildings and rich funerary activities provided a similarly extensive archaeological and anthropological assemblage of finds. However, in the area of the former agglomeration, the possibilities of excavation and the subsequent interpretation of the finds are rather complicated as a result of the Great Moravian settlement being covered by modern development.⁵⁵ Another suitable site for comparison is Břeclav-Pohansko, which is the geographically closest residence of elites to Mikulčice, undisturbed by recent development with a legible settlement structure of the fortified centre, surrounding extra-mural settlements and hinterland.

54 The definition of elite is relative and varies according to the breadth of the processed assemblage and the sites I am evaluating. Therefore, in Chapter 4.1.10 *The contribution of research of technical and technological data of gombíky and the definition of their elite nature*, which focuses exclusively on the Mikulčice agglomeration, I designate only certain selected types produced using extraordinarily technologically demanding processes as elite gombíky. In contrast, when comparing a wide range of finds from many sites in the entire region, this division appears unsatisfactory. The key criterion for evaluating gombíky is no longer subtle differences in the complexity of their production, but rather the differentiation of individual production from serial production.

55 The appearance of the agglomeration was already described by V. Hrubý as a system of settlements with a central cemetery at the Na Valách site (HRUBÝ 1965, 37; for an overview of excavations on the right bank of the Morava River, see GALUŠKA 2002, 51-69). Attention in recent years has also been focused on the core of Uherské Hradiště (Ostrov sv. Jiří), which had been neglected in the past due to dense recent development (for a summary of excavations, see MENOŠKOVÁ 2020, 809-829). Another important territory consists of Sady Hill with the assumption of a supraregional church centre (GALUŠKA 1996).

Mikulčice has the highest number of gombíky (389 artefacts come from graves, another 49 from the settlement context), which is also the highest average representation of gombíky in graves, reaching 6% for the entire agglomeration including the hinterland. The occurrence of gombíky in burials within the agglomeration is not uniform (Tab. 38 in a separate section of long tables after the text), with the greatest number of them coming from the large cemeteries around churches 2 and 3 and from hypothetical church 11 at the acropolis. These three necropolises exceed the ten percent limit of the occurrence of graves with gombíky from the total number of uncovered graves. The importance of the necropolises at the acropolis as burial grounds for elites is underlined by the ratio of gombíky made of precious metals – all of the Mikulčice gold gombíky and three-quarters of the silver gombíky were found in burials at the acropolis.

In contrast, not only does the number of graves with gombíky decrease in the extra-mural settlements, but the number of gombíky made of precious metals is also lower. Moreover, there is a decrease in production-intensive types of gombíky. And yet, the decline in ‘elite’ is not the same in all locations in the extra-mural settlements, and the image of sites at these locations is quite varied. Above all, the cemetery at church 6 stands out from the average, with almost all of the sheet metal gombíky being variants decorated with chasing. Along with a change in the ‘wearers’ of gombíky – almost exclusively children at church 6 – these circumstances could also be further confirmation of chronological waves of gombíky with chasing, which was discussed above in Chapter 4.3.7 *Gombíky as identifiers of social status*. Another relatively ‘rich’ cemetery outside of the acropolis is Kostelisko with a high representation of gombíky in adult graves. At the opposite end of the burial grounds from the Mikulčice extra-mural settlement is Žabník, which, in terms of the burial rite, is closer to the image of the economic hinterland of the fortified settlement or even the more remote countryside (without the occurrence of gombíky in graves).

While there is an uneven yet significant decline in the ‘eliteness’ of gombíky in the extra-mural settlement compared to the acropolis, on average the peripheral part of the agglomeration and hinterland of Mikulčice shows an even more significant shift. But differences are evident even here. The Mikulčice-Panské site is similar to cemeteries from the extra-mural settlement in terms of the rich furnishings of graves. The wealth of finds at the Mikulčice-Panské cemetery cannot be explained solely by the short distance from the acropolis and extra-mural settlement. For example, the cemetery in the Virgásky field section (KOSTELNÍKOVÁ 1958, 60–65; POLÁČEK 2008B, 35–36), despite its close proximity to the acropolis, represents the final resting place of a community with a significantly lower social status than the cemetery discovered in the Panské field section. The banks of the Morava River in Slovakia offer a similarly varied image. While a socially stronger community was buried around the

Church of Saint Margaret, the nearby burial ground in the Kačenáreň field section was used by at least two distinct socially weaker groups (despite a rare find of an elite gombík). The barrow cemetery in Skalica is an interesting phenomenon. Its integration into the Mikulčice hinterland almost breaches the 10-km border around the fortified settlement, and although the local community wore clothing elements similar to the Great Moravian aristocracy, their concept is less elite (gombíky with rings, gombíky hung on a necklace, peculiar anthropomorphic decoration). It therefore seems that the surroundings of Mikulčice offer a varied palette of cemeteries reflecting different communities.⁵⁶ At the same time, it draws attention to the fact that distance from the centre need not be the only parameter for defining the meaning of a community.

In the case of the Staré Město – Uherské Hradiště agglomeration, fragments of the original settlement structure are gradually being assembled, the image of which has been disturbed by the recent settlement of the locality. Therefore, I do not divide the agglomeration into individual settlement areas (centre versus hinterland), but limit myself to a simple list of published sites. For decades, the essential and widely known cemeteries recorded in the cadastres of both contemporary towns largely determined the image of the material culture of Great Moravia. The largest and chronologically, socially and communally diverse cemetery located in the Na Valách field section in Staré Město yielded the most gombík finds (on average in 6% of graves). The typological structure of the gombíky corresponds to the stratification of the burial site: we encounter here a significant representation of decorated sheet metal gombíky (65%), including ones decorated with chasing (45%), though on the other hand, the percentage of unified non-elite artefacts is also high, reaching almost 30% (i.e. glass, undecorated sheet metal, sheet metal with rings and cast gombíky) (Tab. 39 in a separate section of long tables after the text). A different image is provided by smaller cemeteries in Uherské Hradiště – Sady and in Staré Město – Špitálky, where an exceptionally high concentration of graves with gombíky, including elite variants, is documented. For example, gold gombíky were found here in the highest proportion compared to gombíky made of other materials from all Great Moravian sites, and the occurrence of silver was also substantial. Thus, these burial grounds include a concentrated highly elite component of the population, although graves

56 The variety of communities in the vicinity of Mikulčice, which is evident on the basis of funerary sources, is also documented by settlement finds. The economic model of Mikulčice based on a comparison of archaeological and archaeobotanical sources was modified in this sense by Marek Hladík, Marian Mazuch and Michaela Látková, who speak in general about the multi-level hierarchy of settlement between the Great Moravian centres and the periphery, which they demonstrate in the colourful image of settlements around the Mikulčice agglomeration associated with diverse communities (HLADÍK ET AL. 2022).

with non-elite gombíky also appear here.⁵⁷ Based on the discovery of a grave with sheet metal (filigree?) gombíky, the built-up area of today's Uherské Hradiště also has the potential of being a site of elite burials. In contrast, the cemetery in the Horní Kotvice field section, several smaller cemeteries in the Špitálky field section outside the church cemetery and other funeral precincts in the cadastre of Staré Město correspond more to the economic hinterland.

The inhabitants of the Staré Město - Uherské Hradiště agglomeration were apparently buried mainly in smaller community cemeteries, which, like in Mikulčice, reflect their social status. The Na Valách cemetery is exceptional in this regard, and apparently its 'giant' dimensions reflect several social but also chronological levels. In contrast to the similarly large elite cemetery around Mikulčice church 3, apparently much larger groups of the non-elite population were buried at the Na Valách cemetery (chronological and spatial aspects remain to be clarified).

In terms of population size, the agglomeration in Břeclav-Pohansko is the third largest seat of the Great Moravian elites. In the past, the agglomeration was considered an important Great Moravian settlement with a concentration of specialised production under the control of elites residing in the central courtyard (DOSTÁL 1975, 239-262; 1993, 31-53), but the working theory today is that Pohansko was a centre of supraregional trade controlled from the administrative and political centre in Mikulčice (MACHÁČEK 2001, 248; 2012, ESP. 781-782; 2015, ESP. 473-476; HLAVICA, PROCHÁZKA 2020, 78). The two walled courtyards discovered at the site were identified as a palatium (by the first church; MACHÁČEK 2005, 100-138) and a curtis (by the second church; MACHÁČEK ET AL. 2016, 215). The significance of Pohansko as one of key central sites in the Morava River Region could have changed over time, testifying to both the changes to the enclosure of the courtyard with the construction of the first church and the gradual expansion of the local cemetery (PŘICHYSTALOVÁ ET AL. 2019, for an overview, see 20-23; DOSTÁL 1982, 135-201), as well as the discovery of the second church with a cemetery with graves from Late Great Moravian/Post-Great Moravian development and, finally, the occurrence of scattered poor graves and small cemeteries throughout the agglomeration (DOSTÁL 1975, 239-247).

The image of the site seen through the lens of gombík finds (Tab. 40 in a separate section of long tables after the text) evokes the presence of a highly elite segment of the population that buried its dead by the first church (including a group designated as cemetery II near the wall of the courtyard). The share of graves with elite gombíky here is similar to the example of Na Valách in Staré Město and the church 3 in Mikulčice. The cemetery around the first church at Pohansko (along with cemetery II) come close to these sites in terms of the occurrence of gold gombíky (in 6% of graves with gombíky). In contrast, no other

cemetery in the Pohansko agglomeration has provided a find of a gold or silver gombík and, with the exception of grave 120 and 143 from the second church, elite types of gombíky do not occur here. The less opulent grave furnishings around the second church can perhaps be explained by their possible later dating during post-Great Moravian development in the 10th century (MACHÁČEK ET AL. 2016, 209-211).

Undecorated sheet metal and glass gombíky are among the non-elite types of gombíky that appear in cemeteries in the Břeclav-Pohansko agglomeration, where they collectively account for nearly a quarter of all burial gombík finds in the agglomeration. Cast lead pendants of a gombík-like character discovered in three graves (a total of four artefacts) at Pohansko can apparently also be placed in the category of non-elite jewellery. Whereas non-elite gombík account for 15% of the total number of gombíky at cemeteries in the fortified part of Pohansko, this figure grows to over 75% in the extra-mural settlements. Only a single isolated find of a gombík was made in the cemeteries in the hinterland of Pohansko - a glass artefact from the Stará Břeclav - Přední čtvrtky site. Many cemeteries at Pohansko, in the central part or in the extra-mural settlement, contained no gombíky in graves. Compared to the other two central agglomerations, this fact seems like a great social leap - as if the social scissors at Pohansko were more open than at the other two central agglomerations, and the poor population living in the immediate vicinity of the elites had only a very limited opportunity to imitate elite fashion (or lacked the time to do so). An alternative explanation is a chronological shift in the emergence of smaller scattered cemeteries in the area of the former fortified settlement after the departure of the nobility and a change in its original function.

4.4.3 Local centres, the countryside and periphery of Great Moravia

I have attempted to supplement the occurrence of gombíky in central agglomerations with selected published data for the countryside. For the purposes of this work, the categorisation of the Great Moravian 'countryside' is relatively broad and includes cemeteries with different detailed characteristics. Cemeteries occur outside the elite centres but simultaneously close to the local centre (e.g. residential territories near Olomouc, Přerov, Staré Zámky, Strachotín, Dolní Věstonice and Rajhrad), outside the local centres but still in the 'key' settlement area (e.g. Velké Bílovice, Mutěnice, etc.), but also at sites on the assumed periphery of Great Moravia (Stěbořice).⁵⁸

⁵⁷ In the case of the church cemetery in Špitálky, however, it is necessary to take into account distortion caused by the destruction of some of the graves.

⁵⁸ However, the criterion of distance from the centre must be taken as an artificially created border which, although as a whole, describes a certain trend, but at the same time includes a much more varied structure of the former living society: sites in the hinterland show an obviously diverse character (see the duality of the Josefov and Prušánky cemeteries in the same border zone of the Mikulčice hinterland). Remoteness from centres known to archaeologists does not necessarily mean the absence of elite material culture (Nechvalín).

At the same time, this set of sites is a special selection that was made in relation to the scope of the excavation and its publication availability.

'Rural' sites (detailed specification in UNGERMAN 2023A, 57) suffer in general from the fragmentary nature of excavations, with the majority of cemeteries having only been partially uncovered, typically in a rescue excavation under difficult conditions. The image of gombíky coming from these sites is therefore less precise than from locations that have undergone comprehensive and systematic excavations. However, gombíky in this case provide a great deal of information on social differentiation within the Great Moravian settlement territory. I have attempted to structure the sites again according to the typological occurrence of gombíky or based on their absence.

We can describe several different groups of cemeteries in connection with the occurrence of typologically distinct gombíky (Tab. 41 in a separate section after the text). The first type is large cemeteries, which are often located near local centres and have a greater representation of graves with gombíky. However, this is usually the occurrence of one or two types of mass-produced gombíky, which were apparently produced to cover the fashion needs of a larger population. At the same time, there is a minimal representation of graves with elite types of gombíky (usually only 1-2 per site). This characteristic is notably fulfilled by the Dolní Věstonice - Na Pískách site, which I will discuss in greater detail. Looking at the typological range of Dolní Věstonice gombíky, we find that they are remarkably uniform. In addition to the predominant glass and several undecorated copper alloy artefacts, there is one dominant type of sheet metal gombík found here - copper alloy gombíky covered with soldered rings, although, as Š. Ungerman points out, it is not a completely homogeneous type (UNGERMAN 2007, 134). Gilded variants (e.g. from grave 48/54) were naturally of higher value, as were gombíky with applied rings of twisted wire (in grave 385/55 and 644/56). Nevertheless, I would dare to label this type as a representative of the folk form of gombík fashion. This conclusion may also be supported by the fact that we know probable elite examples of gombíky with rings, i.e. in particular the gold pair from grave 440 from the Mikulčice church 3 cemetery (see also UNGERMAN 2023A, 243).⁵⁹ In addition to the Dolní Věstonice cemetery, the Rajhrad site could perhaps also be included in the same group. Although the overall percentage of gombíky in Rajhrad is not high, graves with the occurrence of glass and 'ring' specimens predominate, supplemented by a pair of graves with elite gombíky. Cast 'gombíky' are also found at both mentioned sites, which can be associated with the end of the Great Moravian period or with post-Great Moravian development. At Rajhrad, this is a nomadic

mushroom-shaped gombík from grave 188 (which typically appears in ancient Hungarians' graves, see Chapters 2.1.2 *Cast 'gombíky'* and 4.4.1 *Gombíky as representatives of ideological fusion*), while in Dolní Věstonice it is lead 'gombík' with a high neck (see Chapter 2.1.2 *Cast 'gombíky'*). These cemeteries create an image of a relatively socially unified community, or a community whose more affluent members did not need to significantly project their social status into their burial rite.

Another group is represented by cemeteries with clearly visible noble graves furnished with elite types of gombíky, often from precious metals. On the other hand, non-elite gombíky are almost absent at these locations. A typical example is Rajhradice, where all the artefacts are of an elite character and the representation of silver gombíky even reaches 70% of their total number. Similar parameters also apparently apply to graves from Chromečková zahrada in Přerov II - Předmostí. I would try to interpret this find context as a cemetery of a highly socially structured community with a nobility closely linked to the central agglomerations. It was this local nobility that could form political support for the power elites of Great Moravia and receive elite gombíky as gifts within the *gift-giving economy*. The possibility that it was an elite appointed directly from the Great Moravian centres also cannot be ruled out.

The third group of cemeteries is represented by smaller rural necropolises, where gombíky were usually found sporadically and only in the form of unified types of simple production. This is mostly a glass artefact found exclusively in the graves of women and girls, often near necklace beads.⁶⁰ This find situation corresponds to graves with gombíky from Pěnčín, Brankovice and Žlutava and represents connotations of the period fashion of spherical jewellery in a rural context. But I would not interpret the appearance of gombíky as the adoption of the clothing style of the nobility or as a demonstration of political affiliation but rather as a clothing ornament accepted by the given community (with a possible practical or apotropaic function?), but its placement in the grave was not widespread in this case either. In conclusion, we can state that most truly rural cemeteries did not provide any finds of gombíky or similar artefacts at all (Velké Bílovice, Mutěnice, Kuřim, Předmostí - Nivky, Stěbořice).

The variability of gombíky in different burial grounds reflects the different types of Great Moravian communities burying their dead here. It is a highly varied image with a wide range of nuances, some of which can probably also be associated with a chronological shift, as will be discussed below, especially in Chapter 4.4.10 *Transformations of gombíky in space and time*.

59 I classify artefacts from precious metals in analyses as elite gombíky (while also ranking the graves of their wearers among the elite).

60 Although this does not necessarily mean that it was a part of it, this is how the situation is usually presented and we also have exact evidence of it from Dolní Věstonice (KRUPÍČKOVÁ ET AL. 2019, 93-94).

4.4.4 Southwest Slovakia

Southwest Slovakia is often regarded as an integral part of Great Moravia, with written sources speaking of the expulsion of Nitra Prince Pribina by Mojmir I and the annexation of his territory into Moravia (TŘEŠTÍK 2001, 127–135; MĚŘÍNSKÝ 2006, 142–144; newly HARVÁT 2022, 12). And yet, unravelling the importance of Slovak sites in relation to Moravian centres on the basis of archaeology is quite complicated. The find situation in Slovakia differs from Moravia in several aspects. While two central Great Moravian agglomerations uncovered by recent development are located in Moravia and have been systematically investigated (Mikulčice, Břeclav-Pohansko), Slovak centres from the 9th century have always been heavily disturbed by later settlement activities (Bratislava, Nitra). Added to this is the factor of the continuous development of Slovak cemeteries, often from the 9th to the 11th century, the result of which is, on the one hand, a varied inventory of finds, but also a less legible (overlaid?) Great Moravian stage. On the other hand, the local cemeteries, thanks to their uninterrupted development, provide significant space for solving chronological issues regarding the development of material culture, including jewellery and clothing components, which can also be traced multi-ethnically thanks to the clear Avar and distinctive ancient Hungarian component.

The selection of sites for the territory of Slovakia was aimed at the assumed centres of Great Moravia, primarily the surrounding areas of Bratislava and Nitra. I also took into account the occurrence of gombíky in local centres in the Považí region, Považský Inovec (Pobedim, Ducové, Nitrianská Blatnica, Bojná) and the Pohroní region (Bíňa, Ipelský Sokolec). Other selected sites were studied, particularly those concentrated around the lower section of the Váh (Galanta, Šaľa, Trnovec n. Váhom, Tvrdošovce), in the Slovak Danube River Region (Bajč, Mužla-Čenkov,

Svätý Peter) and in the Little Carpathians (Smolenice, Cífer-Pác, Veľký Grob). Again, this is not a list of finds of all Slovak gombíky, but rather a survey of their representation in certain regions, taking into account publication availability.

Finds of sheet metal gombíky with a decorated surface are relatively rare in southeastern Slovakia – apparently also as a result of the aforementioned specifics (Tab. 42 in a separate section after the text). However, they follow a more or less similar structure of occurrence as in Moravia. They appear mainly at central locations: classic ‘Great Moravian’ artefacts come, in addition to Bratislava and Nitra, from Bíňa; they were also represented in one grave at the Šaľa-Veča, Mužla-Čenkov and Abrahám sites. Decorated sheet metal artefacts were also found in Čakajovce and in Pobedim, but they were of a non-elite type with soldered wire. In addition, undecorated sheet metal gombíky, mostly small in size and made of a copper alloy, as well as glass gombíky with a metal loop are most often found at Slovak cemeteries. Exceptional – and as far as I know, without analogies – are the sheet metal-decorated gombíky from Cífer-Pác, the surface of which is covered with chasing (?) in the form of pseudo-granulation (Fig. 31: 1). The only Slovak gold gombík with vertical ribbing discovered thus far tellingly comes from Nitra – Staré Město (Vršok) from the local disturbed graves and has the closest analogy from grave 19/59 at Uherské Hradiště – Sady.

The production technology of Slovak sheet metal gombíky corresponds to Moravian finds. Shell variant A is found most often here, though in exceptional cases there are artefacts composed of two hemispheres with a collar overlay – i.e. variant C. The only gold ribbed gombík from Nitra-Vršok is made by chasing from a single piece of sheet metal with a collar (variant B). While the gombíky are dominated by attachment mechanism A, the illustrations also show the less represented variant B. Predominant among



FIG. 31 | Unique Slovak gombíky without analogy in Moravia. 1 - Pseudo-granulation on pair from Cífer-Pác; 2 - ‘Bohemian’ type of gombík from Nitra-Amfiteáter site.

1 - Cífer-Pác, grave 19, after Zábajník 1985, 205–216; 2 - Nitra-Amfiteáter, grave 38, after Kouřil ed. 2014, 418.



FIG. 32 | Slovak gombíky with Moravian parallels.
 1a - Nitra - Mikov dvor, grave 14, after Kouřil ed. 2014, 411;
 1b - Mikulčice, church 2, grave 104, photo by J. Foltýn;
 2a - Ducové, grave 1070, after Kouřil ed. 2014, 411;
 2b - Mikulčice, grave 780, photo by J. Foltýn; 2c - Mikulčice,
 church 3, grave 396A, photo by J. Foltýn; 3a - Bratislava
 Castle, grave 174, photo by J. Foltýn; 3b - Mikulčice,
 church 3, grave 1182, photo by J. Foltýn; 4a - Bratislava Cas-
 tle, church, grave 53, after Chropovský, ed. 1978, obr. 12: 1;
 4b - Mikulčice, church 2, grave 98, photo by J. Foltýn;
 5a - Šaľa-Veča, grave 1, after Chropovský, ed. 1978,
 obr. 100: 4; 5b - Mikulčice, church 2, grave 216,
 photo by J. Foltýn.

decorated sheet metal gombíky are artefacts with chasing, with roughly two-thirds of the gombíky decorated with chasing to one-third with soldered decoration. Examples with chasing most often include gombíky with plant and geometric ornament, vertically ribbed gombíky have been discovered in a small number of cases, and the find of a zoomorphic 'bird' gombík (Nitra-Amfiteáter) is rare. Elite artefacts with soldered decoration mainly include two-layered gombíky (Bratislava - Hradná vyvýšenina, Nitra - Mikov dvor), while the find of a poorly preserved artefact with bosses from Abrahám is uncertain. Simple types of Slovak soldered gombíky include artefacts covered with full-surface granulation and filigree wires (most often applied as rings).

A strong connection to Moravian artefacts is evident in the assemblage of Slovak gombíky. Gombíky decorated with chasing in the form of plant motifs are usually arranged in a scheme of arcades with palmettes, and artefacts from grave 14 from Nitra - Mikov dvor and from grave 104 from church 2 in Mikulčice with the long, ridged lower leaves of palmettes (Inv. No. 4465/57) (Fig. 32: 1), a find from grave 1070 in Ducové (with a collar, Inv. No. 152ak) and from grave 780 (Inv. No. 415a/59 and 415b/59) and 396A (Inv. No. 1033a/57 and 1033b/57) from the Mikulčice acropolis (Fig. 32: 2) designated as very similar artefacts. Gombíky decorated with geometric ornament discovered in grave 174 and 177 near the church at Bratislava Castle are also almost identical to the artefacts from grave 1182 from Mikulčice church 3 (Fig. 32: 3). Very close Moravian-Slovak analogies can even be found among elite gombíky with soldered decoration. The two-layered gombíky from child's grave 53 from the cemetery around the church at Bratislava Castle and from girl's grave 98 from Mikulčice church 2 (Fig. 32: 4) are identical in design.⁶¹ Other graves with analogous gombíky are the burial of a warrior (grave 1) from the Šaľa-Veča site and grave 216 from Mikulčice church 2 (Fig. 32: 5). Both featured polyhedral gombíky with a similarly designed set of triangles inlaid with 'poppyseed' granulation.

61 Both have partner artefacts in gold with glass inlays in the form of gombíky from the 'princess tomb' from Zelenky.

Sheet metal gombíky decorated with chasing resembling two-layered decoration became a unique Slovak phenomenon that deviates from Moravian models (Fig. 31: 2). A new technological element is the transverse cutting of double lines,⁶² but the accompanying artefacts that clearly belong to the material culture typical of the 10th century are especially surprising. In female grave 38 from Nitra – Zobor (Amfiteáter location), a pair of these sheet metal gombíky was accompanied by S-shaped temple rings, a bronze torc and a bracelet made of braided wire. A similar sheet metal gombík was also found together with temple rings in grave 73 at the same site. Both gombíky are interpreted as pendants from a necklace composed of glass beads (ČAPLOVIČ 1954, 27, 29; CHROPOVSKÝ ED. 1978, 139). A third gombík of this type was found in female grave 13 from Galanta – Papföld. The cemetery is dated to the 10th century and the grave also contained a thin silver wire chain, 16 pieces of silver rhomboid appliques, heart-shaped pendants, two bronze wire bracelets, a bronze temple ring, glass beads and a leaf-shaped arrowhead next to the pelvis (Točík 1992, 143–144; 146–147). The manner in which these gombíky are decorated seems to be closer in terms of motif and technology to Bohemian rather than to Moravian artefacts.⁶³

Two other characteristic types are added to the gombíky known from Great Moravia in graves in Slovakia: the first are solid cast ‘gombíky’ (mostly with a compressed – mushroom-shaped – body and frequent parallel grooves on the lower part of the body) (Fig. 3: 1), the second are hollow cast vertically divided ‘gombíky’, undecorated or with engraved geometrising decoration,⁶⁴ of which only one half is often found in graves (Fig. 3: 2).⁶⁵ These types are completely characteristic of post-Great Moravian development and are often found together with elements of ancient Hungarian material culture, whose symbiosis with the regional substrate is often referred to as the Bijelo-Brdo cultural sphere.

4.4.5 Bohemia

The highest concentration of material culture influenced by Great Moravia in Bohemia is linked to power centres in central Bohemia and the Elbe River Region. The selection of Czech sites, which I compare with Moravia in terms of the occurrence of gombíky, is based on these areas and local central

agglomerations with the aim of studying the occurrence of gombíky at cemeteries in the vicinity of these centres (Tab. 43 in a separate section after the text). Again, this is not a list of all found Bohemian gombíky,⁶⁶ but a local-analytical survey.

Gombíky are part of the heavy Great Moravian cultural influence in Bohemia. Diplomatic-political relations between Great Moravia and Bohemia are linked to the contacts among Moravian and Czech elites and peaked at least in the 880s and in the first half of the 890s during Svatopluk’s direct rule over Bohemia (TŘEŠTÍK 1997, 334–338). The anticipated existence of family ties among the high social classes from both territories,⁶⁷ perhaps leading to the provision of asylum to former (related?) Moravian allies at the beginning of the 10th century, is certainly justified (TŘEŠTÍK 1997, 286–287; MĚŘÍNSKÝ 2006, 955–967). The strong diffusion of material culture confirms contacts between the two groups. In the first phase, we can probably expect the use of the *gift-giving economy*, or trade imports. Together with the strengthening contacts of the political representation, the clothing culture of the two territories also drew closer, resulting in the Bohemian production of clothing influenced by Moravian designs. The occurrence of jewellery of a Great Moravian character in Bohemia has been traced by archaeologists for many years. On a general level, these finds are often understood – due to their specificity compared to Moravia – as proof of the operation of an independent Bohemian (Prague) jewellery workshop.⁶⁸ Several times there was an exact comparison of the finds by studying the production technology and material composition of the gombíky, essentially confirming this hypothesis (OTTENWELTER ET AL. 2020, 12:145/1–22). Chronologically, the activity of the workshop dates back to the 10th century, at least its first half.

In this context, it is worth considering, among other things, the question for whom – in accordance with the theory of the transfer of ideas (BRATHER 2004, 390–414) – the preservation of the Great Moravian ‘heritage’ was interesting. The Bohemian elite held the culture of Great Moravia in high esteem during the time of its existence and growth, when there were intense mutual contacts between the two sides. One could therefore expect that after the start of a new political stage following the death of Svatopluk (Spytihněv I and East Franconian Arnulf), exacerbated by the demise of Great Moravia at the beginning

62 I cannot specify the method of production in greater detail, because I only worked with publication outputs and did not have the artefacts physically in my hands.

63 E.g. Žalov-cihelna, grave 11/1912, 22/1912; TOMKOVÁ ET AL., 2012, 34–35, 44–45; Lumbe Garden, grave 84, 104; FROLÍK, SMETÁNKA 2014, 152–154; 175–176. On this issue, see Chapter 4.4.7 *Regional and supraregional occurrence of gombíky*.

64 At the Tekovský Hrádok site, the decorated ‘gombíky’ also had a cross-mounted loop; NEVIZÁNSKY, KUJOVSKÝ 1991, 553–554.

65 Rejholecová 1995b, 76; the occurrence of whole artefacts also at the sites Levice – Géňa and Chlába; NEVIZÁNSKY 2006, 289, 292, 310, 315.

66 The latest summary of the occurrence of gombíky in Bohemia was published by N. PROFANTOVÁ (2015, 96–99) and includes 114 artefacts and an analysis of the percentage of the basic types of gombíky: 28% decorated with chasing, 10% with filigree and granulation, 9% undecorated, 4% glass and 11% other (including lost artefacts).

67 Also documented in rare cases in written sources, albeit with a certain amount of interpretational caution – see a Bohemian bride heading to Moravia in 871 with a military escort (Annales Fuldenses, after BARTOŇKOVÁ ET AL. EDS. 1966, 105–106; 357–358).

68 For a comprehensive summary of research, see FROLÍKOVÁ-KALISZOVÁ 2020, 45–46.

of the 10th century, the Bohemian elite would also look for new cultural stimuli and the extinguished Great Moravian potential would recede into the background. If elements of Great Moravian culture remained alive in Bohemia into the 10th century, the question is why this was so (see KALHOUS 2020, 50). On the one hand, it can be another supporting argument of the mutual (family?) ties between the two territories and the increased presence of subscribers of this fashion (i.e. the former Great Moravian elite?) in Prague.⁶⁹ But it is also possible that the anchoring of Moravian clothing specifics took place in Bohemia earlier and this trend simply continued here for some time (objects of the Great Moravian tradition were still buried in graves for some time), with the gradual acceptance of novelties – beads, S-shaped earrings, etc. Theoretically, however, it would also be possible to date the activity of the Prague jewellery workshop already to the second half or the final third of the 9th century.

Cemeteries in the Prague Castle agglomeration with a total of 15 graves containing 36 gombíky have the most finds of these artefacts from early medieval centres in Bohemia, followed by the agglomerations of Stará Kouřim, Levý Hradec – Klecany, Budeč and Libice with up to ten graves containing gombíky. There are also units of graves furnished with gombíky in the cemeteries of other central Bohemian and Elbe River Region hillforts. In general, it is possible to say that at every important early medieval Bohemian hillfort we will find at elite cemeteries some representative of gombíky decorated with chasing or with soldered decoration, usually in combination with other important furnishings. Gombíky are not evenly represented in cemeteries within agglomerations and they usually appear most often in richly furnished graves at one elite cemetery in the region. A good example is the cemetery in Lumbe Garden at Prague Castle, which comes close to the 6% mark of graves with gombíky, thus reaching the level of some Moravian sites. A high representation of gombíky in graves, close to 6%, is also found at the U Libuše cemetery in Stará Kouřim, and other cemeteries rich in gombíky are Libice nad Cidlinou – acropolis and Žalov-cihelna.⁷⁰ Gombíky were also present in the most distinctive early medieval Bohemian grave – a solitary double grave of a man and a woman found in the former Kolín brickyard. Thus, the Czech elite from the consolidating core of the future state fully absorbed the characteristic Moravian decorative clothing element, which, however, can only be

identified with Moravian ‘patterns’ in some cases, as will be explained below.

The character of Bohemian gombíky is typologically and qualitatively diverse.⁷¹ Typologically, we most frequently encounter sheet metal gombíky decorated with chasing, which represent 60% of the listed Bohemian finds. They include a wide range of plant, geometric, but also zoomorphic and anthropomorphic ornaments as well as vertical ribbing. Bohemian gombíky with chasing also usually follow the Moravian patterns of dividing the shell into three decorative fields. Among the decorative schemes, the circular medallion (sometimes replaced by a diamond-shaped field) is more prominently represented than in Moravia, while on the other hand, the arcade scheme appears much less often (and is usually stylised), and the network scheme also appears. The occurrence of gombíky with soldered decoration is approximately ten percent in Bohemia – especially with soldered rings, with ‘poppyseed’ and full-surface granulation, with bosses and two-layered. Gombíky with soldered decoration are therefore significantly less common in Bohemia than in Moravia, and their specific feature here is the more frequent occurrence of glass inlays in metal beds. Undecorated sheet metal artefacts and glass gombíky appear in Bohemia rather exceptionally. Gombíky from Bohemia also follow Moravian models in the technology of manufacturing the shell and the attachment mechanism. We encounter artefacts with type A and C shells, only type B shells are absent (characteristic in Moravia of gold gombíky with vertical ribbing). Type A and B attachment systems can be detected from the illustrations.

Some Bohemian gombíky are very similar if not identical to Moravian finds. Of the soldered artefacts, two-layered gombíky from the ‘princess grave’ from Želénky and from grave 98 at church 2 in Mikulčice (and also from grave 53 from the church cemetery at Bratislava Castle) are remarkably close to each other. The metal used for their production is different (gold in Bohemia, silver in Moravia and Slovakia), as is the original fitting of the Bohemian specimen with glass inlays, which have fallen out today (Fig. 33: 1). Artefacts with soldered rings or full-surface granulation are other less ostentatious types of gombíky popular in Bohemia and Moravia. From the artefacts decorated with chasing, a specimen with spirals from children’s grave 132 in Stará Kouřim can be linked to the whole group of Moravian gombíky (e.g. Staré Město – Na Valách, grave 122/51, 192/51; Mikulčice, grave 544, 1526) (Fig. 33: 2). Some gombíky with plant ornamentation are similar to Moravian artefacts – e.g. these are artefacts from grave 52 from Žalov-cihelna and from grave 396A and 988 from the cemetery near church 3 in Mikulčice (Fig. 33: 3), possibly a pair from grave 31 from Žalov-cihelna and from grave 625 from the Mikulčice church 3 cemetery and 44 from

69 The subsequent migration of craftsmen after the fall of Great Moravia can naturally also be considered. It is, however, a question whether craftsmen are more bearers of ideas or technologies and motifs. Elites with a different ideological orientation would certainly not accept Great Moravian material culture just because experienced craftsmen were able to produce it.

70 Here, the ratio of graves with gombíky to the total number of graves is the most significant, but the cemetery was damaged by clay extraction for decades without records of other graves and finds, which undoubtedly led to a distortion of the find situation.

71 For a comparison of the qualitative aspects of Bohemian versus Moravian gombíky, see OTTENWELTER ET AL. 2020, 1–22.



FIG. 33 | Bohemian gombíky with Moravian parallels. 1a - Želénky, 'princess' grave, photo by J. Foltýn; 1b - Mikulčice, church 2, grave 98, photo by J. Foltýn; 2a - Stará Kouřim, grave 132, after Šolle 1966, 152; 2b - Mikulčice, church 12, grave 1526, photo by J. Foltýn; 2c - Uherské Hradiště - Sady, grave 129/62, after Galuška et al. 2018, 92; 3a - Levý Hradec (Žalov-cihelna), grave 52, after Tomková et al. 2012, obr. 65: 3; 3b - Mikulčice, church 3, grave 396A, photo by J. Foltýn; 3c - Mikulčice, church 3, grave 988, photo by J. Foltýn; 4a - Levý Hradec (Žalov-cihelna), grave 31, after: Tomková et al. 2012, obr. 44A: 1; 4b - Mikulčice, church 3, grave 625, photo by J. Foltýn; 4c - Mikulčice, church 2, grave 44, photo by J. Foltýn.

church 2 cemetery (Fig. 33: 4). More examples could be given, but in order to define specific production circuits, it would be necessary to carry out a detailed production-technological survey.

With some Bohemian gombíky, different decorative motifs and their rendering with an alternative method of chasing appear. In terms of content, we regularly encounter Christian symbolism in Bohemia, which is a completely exceptional matter in Moravia for gombíky decorated with chasing, limited to units of specimens with a cross depiction.⁷² In Bohemia, on the other hand, crosses are represented on almost 20% of gombíky decorated with chasing (Fig. 34: 1), and

in addition, more sophisticated Christian symbolism is documented here.⁷³ Furthermore, the chasing of abstract geometrising motifs (Fig. 34: 2) and the occurrence of rosettes in the medallion scheme lined with a braided 'border' (Fig. 34: 3), or the replacement of medallions with diamond fields (Fig. 34: 4) are also typical for Bohemia. A specifically Bohemian detail is the motif of a stylised leaf with a sharp or hooked end, sometimes curled into an S shape, which can be seen, for example, on gombíky from grave 108 and 115 from Lumbe Garden (Fig. 34: 5). In terms of technology, it is possible to speak of a peculiar style of chasing in Bohemia, which often uses double lines complemented by fine transverse hatching - examples include the

72 I am disregarding the now transferred symbolism of the cross, which appears in the layout of components on Moravian gombíky with soldered decoration.

73 Hand of the Lord (?) from grave 115 from Lumbe Garden (FROLÍK, SMETÁNKA 2014, 188-189).



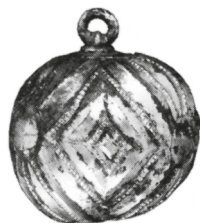
1a



1b



1c



2a



2b



2c



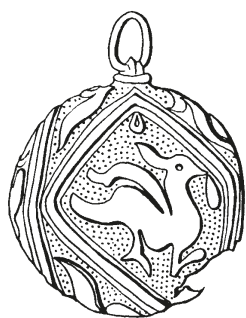
3a



3b



4a



4b



5a



5b

FIG. 34 | Bohemian gombíky as unique products of the 'Prague' workshop. 1 - Christian motifs on Bohemian gombíky; 2 - geometrising motifs; 3 - knit borders and medallions; 4 - diamond-shaped fields; 5 - S-shaped or hooked leaves of plant ornament.

1a - Stará Kouřim, grave 113a, after Šolle 1966, tab. XXVIII: 3; 1b - Prague, Lumbe Garden, grave 104, after Frolík, Smetánka 2014, tab. XIV: 4; 1c - Prague, Lumbe Garden, grave 84, after Frolík, Smetánka 2014, tab. X: 1; 2a - Levý Hradec (Žalovcihelna), grave 11, after Tomková et al. 2012, obr. 25: 1; 2b - Levý Hradec (Žalovcihelna), grave 22, after Tomková et al. 2012, obr. 35: 1; 2c - Prague, Lumbe Garden, grave 104, after Frolík, Smetánka 2014, tab. XIV: 2; 3a - Levý Hradec (Žalovcihelna), grave 22, after Tomková et al. 2012, obr. 35: 2; 3b - Libochovičky, grave 1, photo by J. Foltýn; 4a - Prague, Lumbe Garden, grave 84, after Frolík, Smetánka 2014, tab. X: 2; 4b - Kačice, after Šolle 1966, p. 155; 5 - Prague, Lumbe Garden, grave 108, after Ottenwelter et al. 2014, 169, Fig. 4: 4a, c.

gombíky from grave 11/1912 and 22/1912 from Žalovcihelna, and graves 84 and 104 from Lumbe Garden (Fig. 34: 1b, 1c, 2a, 2b, 3a, 3b, 4a). I believe that artefacts combining the aforementioned elements can be referred to as a characteristic 'Bohemian' gombík created as a completely specific local variant, and therefore these are artefacts that we could label as products of a separate workshop, perhaps identifiable with the mentioned Prague jewellery workshop.⁷⁴ In this context, it is not surprising that the highest concentration of these gombíky was provided by the Prague cemetery in Lumbe Garden, where the majority of gombíky decorated with chasing meet these parameters.

4.4.6 Western Hungary

The centre of Pannonian-Slavic (Sós 1963, 9) or Carolingian settlement (SzóKE 2014, ESP. 38-59), which bears an uncommonly close similarity to Great Moravian material culture, was the settlement area in the Carpathian Basin in the floodplain of the Zála River near Lake Balaton. The agglomeration spread around the most important location, Vársziget (currently cadastral territory of Zalavár), where there is evidence of a fortified lowland river stronghold with the remains of several church buildings identifiable with Mosaburg known from written sources of the 9th century. Settlement continued in the 11th century, when the Árpád monastery was built in the highest place of the sand dune, later rebuilt into a high medieval castle, deserted since at least the second half of the 16th century (Sós 1963, 5-10).

From the central location of the island castle (Vársziget) come two investigated church cemeteries with graves from the 9th century - at the Church of the Virgin Mary and at the Basilica of St. Hadrian. Graves of the same age are also known from the church sites of Récészút and Borjúállás sziget (cadastral territory of Zalaszabar), but also from numerous other cemeteries throughout the nearby settlement territory. The image of the appearance of gombíky is similar to the situation known from Moravia. The

elite cemeteries around the churches in the fortified Vársziget contain a relatively wide range of 'Great Moravian' sheet metal gombíky decorated with chasing as well as filigree and granulation (TAB. 44 in a separate section after the text). Due to the unclear dating of nearly two thousand graves discovered at Vársziget, it is not possible to estimate the percentage of graves with gombíky from the 9th century. Another church cemetery near a walled courtyard with a wooden church building on the former river island of Bórbjúállás also shows a significant occurrence of decorated sheet metal and glass gombíky. Gombíky were found here in about 2% of graves. Roughly half of the finds here are glass artefacts.

The Pannonian gombíky have a production-technological character identical to Moravian gombíky. The shells are most often in the form of variant A, in the case of a rare find of a gold vertically ribbed gombík, then as variant B. According to available sources, variant C is absent at Zalavár. Based on illustrations, the fastening system can be characterised as variants A and B. Of the sheet metal gombíky, specimens with soldered decoration (with bosses, with soldered rings or with full-surface granulation) predominate, undecorated specimens are next in the order of occurrence, and there are relatively few gombíky decorated with chasing (altogether five artefacts - one gold with vertical ribbing, one pair and one solitaire with stylised plant decoration and one gombík with bird ornament). Glass gombíky have the highest representation. The spectrum of gombík-like artefacts is completed by a pair of elongated drop-shaped sheet metal pendants decorated with granulation and filigree from the Vársziget site, which resemble Byzantine ornaments.⁷⁵ Despite the relatively typologically structured representation of gombíky, given the total number of graves in these cemeteries it is evident that the percentage of the population that wore the same fashion as the Moravian elite was not as high as in the Great Moravian settlement territory. At the same time, the local character of the funerary sources and, in fact, of the entire settlement complex is very similar to, for example, Mikulčice, and one could perhaps even speak of the closest sites in terms of type if we accept that Mikulčice was the administrative-political

74 The appearance of Bohemian gombíky, especially artefacts from grave 104 from Lumbe Garden, with gombíky from the Slovak sites of Nitra - Zobor (Amfiteáter) and Galanta - Papföld dated to 10th century, is striking. These could be products of the Prague workshop that reached the Nitra region as part of diplomatic or business contacts. A detailed technological survey would be necessary to verify this assumption.

75 See, e.g. finds from the Preslav Treasure (ALADJOV 2018, 56-57; on the subject, e.g. KRUPÍČKOVÁ 2020, FIG. 196: 3, 4); it could also originally be a pendant from opulent earrings, see BOSSELMANN-RUICKBIE 2011, 231, KAT. NR. 35A, B, 255, KAT. NR. 70.



FIG. 35 | Lower Pannonian gombíky with Moravian parallels. 1a - Zalavár, Vársziget (Hungary), grave 1/2000, photo by Š. Krupičková; 1b - Uherské Hradiště - Sady, grave 209/59, photo by J. Foltýn; 2a - Zalavár, Borjúallás (Hungary), grave 296, photo by Š. Krupičková; 2b - Staré Město - Na Valách, grave 193/51, after Kouřil ed. 2014, 310.

centre of Great Moravia, similar to how the administrator of the Frankish beneficium in Pannonian resided at Vársziget.⁷⁶ The image of the local gombíky indicates that elite artefacts in some cases have close analogues in Great Moravia (Fig. 35)⁷⁷ and are probably related to direct contacts between the Morava River Region and the Zala basin. If we were to consider that these gombíky reached the Zalavár region with written sources claiming the departure of Pribina from Nitra, this would be conditional on their importance being anchored in the Great Moravian elite material culture already in the 830s. The verification of this thesis by typological analysis of the Pannonian artefacts themselves - from the cemetery around the Church of St. Hadrian we know of both a gold ribbed gombík, which is considered to be one of the representatives of the earlier Great Moravian horizon (UNGERMAN 2005, 714), and specimens with a somewhat atypical (stylised

or misunderstood?) plant decoration, which we could perhaps consider a form of late derivative.⁷⁸ If we were to understand the gombíky as status symbols of the Mojmirid dynasty, who distributed them among their retinues, the idea that such a symbol would keep Pribina alive with his retinue after his defeat and forced departure from Nitra (833/836) does not make sense, in my opinion, even for several years until obtaining a beneficium in the south of Lake Balaton (840/842). Therefore, it seems more realistic to me to connect the occurrence here of decorated gombíky of the Great Moravian type with contacts between the two territories, which took place independently of these events, even if Pribina's origin could have initiated or intensified them.⁷⁹ At the same time, there is a high percentage of glass or undecorated sheet metal gombíky in the Zalavár agglomeration, which are probably not deposited in the graves of the highest aristocracy. Some examples of local gombíky are then of a different 'non-Moravian' character, which can be demonstrated by the use of full-surface granulation without wire underlays⁸⁰ or by high and partially undecorated bosses on a pair of gombíky from grave 120/89 (Fig. 36).⁸¹ The extent to which the parallel regional development of 'gombík' fashion and/or chronological aspects are reflected in these artefacts is not entirely clear. The publication of key burial sites around the Church of the Virgin Mary and the Basilica of St. Hadrian, with the possibility of studying a larger number of entire grave inventories, could perhaps help in formulating more specific conclusions.

A different phenomenon is the occurrence of decorated sheet metal elite gombíky in the context of ancient Hungarian cemeteries or isolated graves no longer connected to the Zalavár agglomeration, and when researching them we also leave the area of western Hungary. This topic was addressed by Károly Mesterházy, who collected a total of 15 sites with gombíky with soldered decoration and nine sites with gombíky with chasing. Only a part of these graves come from the territory of present-day Hungary (11 sites with gombíky with soldered decoration and two sites with gombíky decorated with chasing); other ancient Hungarian graves with the occurrence of decorated gombíky are known mainly from Slovakia (five sites with gombíky with chasing and one with soldered decoration), from Romania (three sites

76 Both Zalavár and Mikulčice can be equally characterised as regional centres and residences of the highest representatives with a high concentration of church architecture surrounded by large cemeteries. Moreover, both sites were established in similar natural conditions on sand dunes above river branches and have not been significantly damaged by recent development as a whole. See POLÁČEK 2020, 104-105.

77 Artefacts with bosses and 'poppseed' granulation occur in large numbers at church 3 in Mikulčice, in the same way that gombíky with bird motifs are common in the Moravian environment. A gold gombík with vertical ribs has very close analogies and artefacts from grave 19/59 from Uherské Hradiště - Sady (GALUŠKA ET AL. 2018, 30) most closely resemble it. A gold pair with filigree and granulated decoration forming geometric bands from Borjúallás also has its 'Moravian variant' - gombíky from grave 193/51 from Staré Město - Uherské Hradiště Na Valách site (HRUBÝ 1955, 518-519).

78 The decoration is similar to gombíky from grave 106b-c from the U Libuše cemetery in Stará Kouřim ('Kouřim princess grave', ŠOLLE 1966, 266-267).

79 Also worth mentioning in this context is that there is no published evidence of the settlement of Vársziget or Borjúallás before Pribina, and the local churches and burial grounds are in their early days associated exclusively with Pribina's beneficium; SZÓKE 2014.

80 Similar artefacts are known from the Preslav Treasure, see TOTEV 1993, 64, FIG. 38 on the right; BOSSELMANN 2001, 24-25, 369, ABB. 12.

81 They evoke finds of beads and earring decorations from Croatia, e.g. from Bribir-Vratnice, Biskupija-Crkvina and Knin-Spas (PETRINEC 2009, 504, TAB. 180; 554, TAB. 230; 582, TAB. 258).



FIG. 36 | Unique Lower Pannonian gombíky without analogy in Moravia. 1 - Granulation without wire underlays; 2 - unique boss variant.

1 - Zalavár, Borjúallás (Hungary), grave 123, photo by Š. Krupičková; 2 - Zalavár, Vársziget (Hungary), grave 120/89, after Szóke 2020, Abb. 102: 1.

with gombíky with soldered decoration), from Serbia (one specimen with chasing) and from Ukraine (one specimen with chasing; MESTERHÁZY 2000, 211-226). K. Mesterházy considers large gombíky decorated with chasing in an ancient Hungarian context to be artefacts of Great Moravian origin, which were an article of trade or war booty.⁸²

Apart from the decorated gombíky of the Great Moravian tradition described by K. Mesterházy, cast gombíky of various types (often flattened - mushroom-shaped) or joined from two castings (with vertical or horizontal division of the surface, sometimes decorated) are quite common in the ancient Hungarian context.⁸³ They are most often found in the graves of women, but also of men and children, and were apparently used to fasten clothes. These metal artefacts could apparently also be supplemented in the Central European context by fasteners made of organic materials that have not survived.⁸⁴

4.4.7 The regional and supraregional occurrence of gombíky

As anticipated, Great Moravian centres in the Morava River Region were the sites with the greatest occurrence of elite gombíky,⁸⁵ with finds connected to a group of 24 cemeteries from the sphere of Great

Moravian agglomerations (Tab. 45 in a separate section after the text). This group includes almost all the cemeteries from the Mikulčice acropolis and extra-mural settlement and approximately half of the cemeteries from the peripheral part of the agglomeration and Mikulčice hinterland. While there is not such a broad structure of cemeteries with elite gombíky in the area of the Staré Město - Uherské Hradiště agglomeration, the occurrence of elite finds is extremely high in several locations. The nobility concentrated at Břeclav-Pohansko is represented by elite types of gombíky at church cemeteries, and these artefacts do not occur elsewhere at the agglomeration. While elite gombíky predominate over their non-elite counterparts at most of the cemeteries of the Great Moravian centres, all centres also include cemeteries at which non-elite unified types of gombíky appear.

An occurrence rate of elite gombíky exceeding three-quarters is typical for the burial grounds around churches 2, 3 and 6 in Mikulčice. In the cemetery near Mikulčice church 2, the non-elite component consists of a group of children's graves with gombíky with geometric ornament, otherwise there were essentially no non-elite gombíky (the undecorated pieces were gold, while there is a reasonable suspicion that an iron artefact was a rattle). A small series of glass gombíky was found at church 3 in Mikulčice, while only one glass artefact was found at church 6. A similar find situation appeared at the cemetery in Uherské Hradiště - Sady and at the church in Staré Město - Špitálky. Based on the example of gombíky, these cemeteries provide an image of an unusual concentration of nobility with a very small number of burials of less elite communities. Nevertheless, it could be expected that at least non-family members of the *familia*, i.e. essentially servants in the household and therefore persons of lower social origin, could also be buried in the same burial grounds as the nobility. However, their graves do not contain distinctly non-elite or folk types of gombíky. One possible explanation is that these individuals wore the same types of gombíky as the nobility, albeit in a lower quality. In this case, we could look for the graves of non-family representatives of the *familia* among individuals buried with gombíky made of copper alloy, decorated, for example, with simpler chasing or coarse sparse granulation. However, it is likely that the gombíky, as symbols of belonging to a higher social group, did not usually reach the graves of the lower social strata at all, and the less ostentatious variants of the gombíky can be explained by chronological shifts. It is uncertain whether we can chronologically interpret the low occurrence of 'folk' jewellery at a number of cemeteries of large centres, i.e. that the production of simpler jewellery is a matter of development and that these were not produced at all during the heyday of local cemeteries, or that their wearers arrived here only after the collapse of the social system after the departure of elites (see rare burials with glass gombíky at church 3 in Mikulčice). Or whether they symbolised

82 Károly Mesterházy also draws attention to the complexity of the issue of the origin and distribution of gombíky and, in general, to selected analogous finds in the broad chronological framework of the 8th-11th century found in the large geographical area from Central Europe to the Caucasus, MESTERHÁZY 2000, 211-226.

83 For an overview of ancient Hungarian fasteners, see ANDRÁSI 2015, 153-175. See Chapter 2.1.2 Cast 'gombíky'.

84 This is how, for example, the disparity between the occurrence of metal fasteners in the graves of women and men (or children) is explained (the occurrence in female graves dominates; ANDRÁSI 2015, 153-175).

85 Elite gombíky in the sense of individual (not mass produced) artefacts with chased and soldered decoration or artefacts from precious metals.

the parallel and different fashion of the countryside, which did not penetrate the central burial ground.

The occurrence of gombíky outside of a central agglomeration does not reveal any connection to the distance from these centres. On the contrary, local 'cells' appear with a significant occurrence of elite gombíky, usually in one or more cemeteries (near the presumed local centre). These graves can be interpreted as burials of local elites with a power connection to the nobility in the Morava River Region. These local elites could have been the recipients of exclusive gifts from Mikulčice, Staré Město - Uherské Hradiště or Břeclav-Pohansko in exchange for political loyalty and support, or perhaps they were elites installed from centres in the Morava River Region charged with administering strategic hillforts along important routes. These gifts could have included elite gombíky, status symbols at the time. The cemeteries in Rajhradice and Rebešovice can be included in the group of necropolises with a high representation of elite gombíky (the non-elite component is completely absent). More than half of the gombíky at these sites were made from silver and the artefacts always occurred in graves in a 'classic' pair. Similarly, the widespread distribution of elite gombíky copies the map of cemeteries at the hillforts located on the main routes towards Slovakia and Bohemia, and the gombíky found here could thus symbolise political-diplomatic relations with the Great Moravian centres in the Morava River Region, respectively political control of elites over strategic places.⁸⁶

I have already classified finds of gombíky from southwestern Slovakia and Bohemia using the term 'supraregional occurrence', since the affiliation of these territories to Moravian sovereignty was not constant or clearly defined territorially and temporally during the 9th century. Great numbers of gombíky have been found in both of these regions - in Bohemia the number of finds exceeds 100 artefacts, while in southwestern Slovakia it is also close to this round number. However, the differences between the two territories are evident upon a closer typological analysis of the finds, with southwestern Slovakia being closer to Moravia in this sense. Although the number of elite gombíky in Slovakia is not nearly as high as in Bohemia (Slovak numbers are roughly half of the Bohemian total), Slovak gombíky are identical to Moravian gombíky in terms of construction, decorative schemes and motifs, and they also do not have any unique artistic/craft features (with the only exception being a trio of large silver gombíky decorated with chasing from the Nitra-Amfiteáter and Galanta-Papföld sites). Oddly enough, however, thanks to the geometrising decoration and the method of chasing with crossed lines, these three specimens show the closest proximity to the gombíky from the Bohemian

sites of Žalov-cihelna (grave 11/1912, 22/1912) and Lumbe Garden (grave 84, 104) (TOMKOVÁ ET AL. 2012, 34-35, 44-45; FROLÍK, SMETÁNKA 2014, 152-154; 175-176). Interpretationally, I would probably call them late imports from Bohemia, with their grave deposition falling into the period after the demise of Great Moravia, which corresponds to the artefacts of the Bijelo-Brdo cultural sphere that accompanied these gombíky in the graves. In my opinion, the absence of unique elite gombíky in Slovakia indicates that there was probably no jewellery workshop there producing them.⁸⁷ Prestigious types of gombíky thus apparently reached southwestern Slovakia mainly via diplomatic routes (setting aside the possibility of trade, which is improbable for elite goods in this period; HLAVICA, PROCHÁZKA 2020, 76-78). The large number of cast copper alloy gombíky is a specific Slovak trait connected with the ancient Hungarian horizon (for more on the typology of cast gombíky, see Chapter 2.1.2 *Cast gombíky*). Other socio-chronological aspects of gombíky in southwestern Slovakia may help in the future to clarify the as yet unpublished finds from extraordinarily interesting cemeteries in Pováží region (Borovce, Dubovany), which were used over a long time period.

In contrast, in Bohemia we can observe both a component of elite gombíky with close analogies in Great Moravia, and a large group of distinctive luxurious gombíky with no parallels in Moravia. As such, some gombíky reached Bohemia from Moravia. On the one hand, it could have been through a diplomatic route (perhaps including marriage policy?), while alternatively, it is possible to keep alive the older idea that at least some 'Moravian-type' gombíky reached Bohemia only with a potential wave of refugees after the demise of Great Moravia.⁸⁸ But the spectrum of Bohemian gombíky has grown to include their own - independent of Moravia - production. While Bohemian gombíky continue to feature the Moravian construction design, they change in terms of their workshop attributes and applied motifs. The motifs and schemes of gombíky decorated with chasing of Bohemian production seem to refer more to sacred architecture with braids and rosettes, whereas other artefacts, in contrast, are distinguished by the arrangement and geometrisation of decoration. A reference to Christian symbolism is

86 There is no evidence thus far of a distinct elite community using exclusive gombíky at the Znojmo hillfort, but the publication status may play a role in this situation. A pair of gombíky decorated with chasing in form of plant ornament is on display at the Great Moravia Museum in Znojmo-Hradiště.

87 The situation could be different with non-elite gombíky - in Chapter 2.1.1 *Glass gombíky* I mention evidence of glass production in Devínská Kobyla, with glass gombíky preserved *in situ* in a glassmaking furnace (FARKAŠ, TURČAN 1998, 33, 37). And naturally this does not mean that jewellery workshops producing other fine metalwork items were absent in Slovakia - the remains of one of them were apparently discovered, for example, in Zemianske Podhradí (unpublished information from the field commission in 2019).

88 It is difficult to say which theory could support the fact that many gombíky of a 'Moravian character' in Bohemia do not rank among artefacts of the highest quality, including solitary pieces from the princely grave in Kolín and the gombíky from grave 97 from Stará Kouřim and from grave 65/1952 from Žalov-cihelna (KOŠTA, LUTOVSKÝ 2014, 37-39; ŠOLLE 1966, 265; TOMKOVÁ ET AL. 2012, 119).

typical on gombíky decorated with chasing of Bohemian provenance. In terms of material, Bohemian gombíky decorated with chasing are made from thinner silver (i.e. less material is used on the gombíky, but they are larger and hence more fragile).⁸⁹

The final ‘enclave’ of elite Great Moravian-type gombíky is the Zalavár agglomeration in western Hungary. Their occurrence here is related to close diplomatic ties with Moravia, which apparently arose both with regard to the origin of the first administrator Pribina, and especially with intensive contacts during the second half of the 9th century. In addition to gombíky with analogues in Great Moravia, specimens that do not correspond to Moravian production also appear in the local cemeteries. These are always gombíky with soldered decoration in the form of filigree and granulation applications, and it is therefore likely that they refer more to the Byzantine-Balkan jewellery tradition and are evidence of the supraregional popularity of hollow sheet metal clothing ornaments.

4.4.8 Modeling of the relative chronology of Great Moravian gombíky

Following the spatial analysis of the occurrence of gombíky, especially in the Central European area, I will focus on their chronology. Questions of the detailed chronology of Great Moravian material culture have not yet been reliably resolved in terms of the relative or absolute chronology. Earlier complex chronologies methodically relied on classic archaeological procedures of vertical or horizontal stratigraphy and the mass comparison of entire groups of artefacts *per analogiam*. The results were then compared with historical data known from written sources in order to formulate the absolute dating of the artefacts.⁹⁰ Only in the last two decades have several detailed analyses of selected groups of artefacts appeared, resulting in the first clearer developmental relative chronology lines published including the methodological procedure that was employed (KOŠTA 2008, 277–296; UNGERMAN 2005, 707–749; 2021, especially 131–148). The relative chronology of gombíky is also my research intention, but I tried to implement it using an alternative method. First, I created a general model of gombík development over time based on theoretical literature. This model is already described in general in Chapter 3.3 *Initial hypothesis and purpose of Great Moravian gombíky in living culture*, but now I will attempt to expand upon it using the results of the analyses conducted in previous parts of this work.

Based on the principle of the supraregional spread of elite fashion among the early medieval nobility (see Chapters 3.1.4 *The spread of fashion trends* (Simon Ungerman) and 3.3 *Initial hypothesis and purpose of Great Moravian gombíky in living culture*), I see the beginnings of gombíky in our territory in elite gold artefacts of extraordinary craftsmanship and artistic quality. This assumption is not contradicted by a mapping of the occurrence of decorated spherical sheet metal clothing components outside the region of Great Moravia. If we were to choose from the two cultural trendsetters of the 9th century – Byzantium and the Frankish Empire – we can state that the trend of sheet metal spherical clothing parts probably spread to our territory from the southeast under the influence of Byzantium, as I discuss in detail in Chapter 4.4.1 *Gombíky as representatives of ideological fusion*. We can consider the spherical sheet metal artefacts found in the Croatian cemeteries in Brestovac and Trilj as hypothetical models of the oldest Great Moravian gombíky.⁹¹ The smaller dimensions and soldered decoration on the ‘model’ gombíky from Great Moravia correspond to this find situation, to which I mainly include the gold artefacts from graves 300, 318, 380, 425, 490, 505, 553 and 580. At the same time, these are some of the most important Mikulčice graves, in which adults or juvenile individuals were buried with other extraordinary grave furnishings; they were even interior church 3 tombs in three cases. All of these aspects support the idea of burials of the highest Great Moravian elite, whose grave inventory contained exclusive imports,⁹² including gold spherical sheet metal clothing accessories that probably served to fasten the clothing at the neckline. The three polyhedral knobs in female grave 318 also have formal support in Southeast Europe – the occurrence of hollow sheet metal pendants (?) with a similarly shaped body is known from the Balkans, though only simple undecorated types have been found there thus far (FIEDLER 1992, 192–194). On the other hand, a Great Moravian specific is gombíky decorated with chasing on the shell, which we encounter (with a few exceptions) exclusively in the core of Great Moravia and in adjacent regions with close diplomatic-political and kinship ties. Their occurrence should therefore follow the group of the oldest gombíky with soldered filigree and granulated decoration, although if even these older types certainly did not disappear without further development. Neither the softness of the metal nor the small size of the expensive gold

89 For a technological comparison of gombíky from Bohemia and Moravia, see OTTENWELTER ET AL. 2020, 12:145/1–22.

90 The chronology of Great Moravian material culture as a whole was addressed by J. POULÍK (1948), V. HRUBÝ (1955; 1965), B. DOSTÁL (1966), Z. KLANICA (1990, 57–64), L. GALUŠKA (1996), in more recent years in particular by H. CHORVÁTOVÁ (2004; 2007; 2015) and Š. UNGERMAN (2005; 2011; 2020B; 2020D).

91 The clothing tradition of spherical decorations/fasteners evident on traditional Dalmatian clothing up to the modern period is noteworthy in this context. A pair of large spherical ornaments at the neck, through which the textile cords holding the neckline are threaded, still appear as part of the folk costume at the beginning of the 20th century (MARGARETIĆ 2017, 50–51).

92 On the issue of distinguishing between an artefact that was actually imported and one that was made by a foreign craftsman based on skills acquired in different regions but already working in the studied area, see POLÁČEK ET AL. 2024, 97–98.

gombíky provided not enough space for the artistic rendering of complex schemes and motifs. It was only with the use of silver that ideal conditions were achieved for the creation of particularly large and complex gombíky with chasing, i.e. representatives of a likely later stage of development. Thus, medium to large dimensions and a material transition from gold to silver and copper alloy imitations should be typical for gombíky with chasing. I also see significant interpretive potential in the transformation of the attachment mechanism. The emergence of gombíky with a closed circular loop that can move in a separate clamp indicates a change in the function of gombíky. A movable loop appears to be a more advantageous attribute of pendants than fasteners, which, on the other hand, should be more firmly attached to the base with a fixed (split) loop.

At this point, a parallel is offered to the change in size, production material and position in the grave of Western European Merovingian fibulae around the middle of the 5th century. While in the previous period mainly fibulae made of non-ferrous metals and iron appeared in graves, there was newly an increase in artefacts made of precious metals (MARTIN 1995, 46). The graves of elite females are furnished with striking, highly decorated and very large fibulae (STEUER 1982, 489–490). Bow fibulae have a new orientation in the graves – previously they were found in a horizontal position, but the new position is predominantly vertical and there is also a spatial shift of fibulae towards the lower parts of the torso and lower limbs.⁹³ All of these changes are interpreted as evidence of a move away from the practical function of fastening clothes using fibulae, which then continued in a role as status symbols of the higher social classes. If the Mojmir intentions were similar to those of the Merovingians, the gombíky would have gradually transformed from functional decorative fasteners, at most of medium size, towards large fragile variants decorated with chasing that already lacked a practical function, which is actually consistent with the massive occurrence of such artefacts in the central Great Moravian cemeteries. As status symbols, gombíky may have become part of redistribution, spreading across elites within the region and beyond (perhaps based on family ties). Diverse and essentially high-quality imitations of gombíky could be produced in Great Moravia relatively soon, but the increase in cheap uniform production had to develop over time (though never reaching a scale in Great Moravia as seen, for example, in the Carpathian Basin or the Balkans)⁹⁴. The age base of gombík wearers also gradually expands to include children, whose gombíky last the longest in their graves, even after the need for spectacular family representation through an abundance of exclusive grave furnishings for adults has faded.

93 MARTIN 1995, 40–46; 2000, 226–230.

94 See the earlier chronological classification of gombíky with soldered rings from Dolní Věstonice – Na pískách (UNGERMAN 2007, 135). See imitation problematic also in UNGERMAN 2023A, 243.

I tried to verify the indicated chronological changes in the purpose of the gombíky, which is based on theoretical modelling and combining functional data, with the classic archaeological chronology method of vertical stratigraphy. I again conducted the research on the Mikulčice find assemblage.

4.4.9 Chronology of gombíky based on the superposition of graves at church 3 in Mikulčice

For the implementation of the vertical stratigraphy method, I chose the gombíky discovered at the cemetery near Mikulčice church 3, where the most complex superposition of graves with chronologically sensitive finds are located in the Mikulčice cemeteries.⁹⁵ From the overview of the stratigraphic relationships of the 63 graves with gombíky found near the church 3, it is clear that 23 of them were superimposed with another grave, in four cases it was a double superposition – the grave with gombíky was located between two other graves (Tab. 46 in a separate section after the text).

The 17 graves with gombíky were suitable for addressing chronological relationships through superpositions, given the chronological sensitivity of the grave goods in the superposed graves, as well as in connection with the state of gombík preservation. I consider spurs to be the most important comparative artefact, with numerous occurrences in graves and a chronology well-elaborated by Jiří Košta, where I work from the following sequence of types: 1) with two rows of rivets/with two rivets and a rib parallel to the arm (in the lavish design of the Biskupija-Crkvina type);

⁹⁵ Blanka Kavánová dealt with the stratigraphy of graves near the church 3 and the resulting dating of, among other things, gombíky. Her preliminary analysis is based on the superposition of grave 480, which contained a solidus of Michael III, and on the depth of grave 396, 397, 499 and 553 south of the church 3. Regarding grave 480, the author judges from the dates Emperor Michael III lived that 'the coin could have entered the grave no earlier than 856 and that its occurrence in Byzantium after the end of the emperor's reign is unlikely.' (UNGERMAN, KAVÁNOVÁ 2010, 80–83). However, the actual deposition in the Great Moravian grave itself could have been much later than the year 867 (the violent death of the emperor), despite the fact that the coin does not show significant signs of practical use (it could, e.g. have been part of the accumulation of elite wealth for a longer period of time). Moreover, the first three deep graves contain spurs with strap arms, which are designated in this context (next to the spur with three pairs of rivets parallel to the arm – in lavish variants of the Biskupija-Crkvina type) as an older artefact, and the age of the other artefacts is then deduced from them. While the depth of the grave is certainly a significant argument, the depth in itself may not always be a clear guide to the dating of the grave. Only a few metres to the west of the mentioned group of graves with strap spurs at a depth of 125 cm was (older) grave 565, subsequently partially disturbed by later grave 589, which was buried significantly deeper – 160 cm below the surface. In addition, traces of previous settlement in the vicinity of the church 3 may also play a role, i.e. the presence of former residential buildings in the area of the expanding cemetery may have influenced the depth of the buried graves.

2) with three rivets transverse to the arm; 3) with strap arms (KOŠTA 2008, 277–296).

In addition to the spurs, a suitable chronology artefact for women's graves is a selected group of jewellery processed systematically by Šimon Ungerman. For the earrings, I consider the presence of decoration on the upper arch to be an important argument for their 'age'; beads earrings then have a detailed chronology, which I understand in the following simplified sequence: 1) undecorated beads with the seam covered by filigree wire (variant E); 2) with 'poppyseed' granulation (forming cross motifs or triangles) (variants B, D); 3) with full-surface granulation on the beads (variant C) (UNGERMAN 2021, especially 131–148). I also work with other methodologically substantiated published chronology results of other artefacts and refer to them separately (Tab. 47 in a separate section after the text).

Based on the aforementioned chronology research and taking into account vertically and partly horizontally stratigraphic relationships, I attempted to compile a precise division of gombíky into relatively older and relatively younger artefacts⁹⁶ using the following 'scoring' and observing other accompanying rules:

1. *Vertical stratigraphy: without superposition = 0, for each grave above a grave with gombíky = -1, for each grave beneath a grave with gombíky = +1; i.e. graves with a negative value indicate a predominant layering and may belong to older burials; for the possibility of monitoring relevance, the number of all individual superpositions was also recorded (number after the slash)*
2. *Finds in a grave with gombíky: does not contain a chronologically sensitive artefact = 0, contains a chronologically sensitive artefact that is probably older = -1, contains a chronologically sensitive artefact that is probably younger = +1; i.e. graves with a negative value indicate predominant likely older artefacts and could belong to older graves; for the possibility of monitoring relevance, the number of all chronology artefacts was recorded (number after the slash)*
3. *Finds in graves in superposition with respect to a grave with gombíky: a grave stratigraphically beneath a grave with gombíky with a chronologically older find and/or a grave stratigraphically above a grave with gombíky with a chronologically younger find = 0, a grave above a grave with gombíky with a chronologically older find = -1, a grave beneath a grave with gombíky with a chronologically younger find = +1, for the possibility of monitoring relevance, the number of all chronology artefacts were recorded (number after the slash); i.e. graves in superposition below graves with gombíky with older artefacts*

are an anticipated find, as are graves in superposition above graves with gombíky with younger artefacts - i.e. they are not 'scored'; on the other hand, if a burial with older artefacts is in superposition above a grave with gombíky, I assume it is possible to designate the grave with gombíky as older and, conversely, if a burial with younger artefacts is in superposition below a grave with gombíky, I assume that it is also possible to designate the grave with gombíky as younger.

4. The categories of superpositions and finds serve to control one another, but I use a combination of both factors for the evaluation.
5. If the only point value was a superposition, I did not define a chronological order because superpositions could follow in quick succession (e.g. grave 431, 469). This process of burial is also indicated by the fact that graves in superpositions are often undisturbed by one another despite in some cases being separated by only a very small amount of soil. Likewise, I avoided conclusions for graves that had a chronologically sensitive artefact only in the grave in a superposition to the grave with gombíky and again it was not possible to resolve the length of the gap between burials (e.g. graves 240, 300, 491). Both of these categories of graves are labelled 'w/o conclusion' in the table.
6. Artefacts to be probably older for this analysis: spurs with two rows of rivets/with two rivets and a rib parallel to the arm (in a luxurious design of the Biskupija-Crkvina type), the presence of decoration on the upper arch of earrings, for earrings with four undecorated beads with the seam covered with filigree wire (variant E) and with 'poppyseed' granulation (creating cross motifs) (variants B, D). Any other finds suitable for chronological comparison are listed and cited directly in the table below.
7. I consider the following artefacts to be probably younger for this analysis: spurs with three rivets transverse to the arm, spurs with strap arms, earrings with four beads with full-surface granulation on the drums (variant C). Any other finds suitable for chronological comparison are listed and cited directly in the table below.
8. I refer to graves with gombíky that neither lie in superposition nor contain chronologically sensitive artefacts among other furnishings as 'unevaluated'.

On the basis of Tab. 46, I divided the gombíky from the graves in superpositions into a group that is related more to the earlier burial horizon (Fig. 37) and a group that I classify more to the younger horizon of graves at the church 3 (Fig. 38).

I classify a total of 16 artefacts from eight graves among gombíky deposited at the cemetery by the church 3 in the earlier horizon. These gombíky have several specific features. One is the complete absence of the type A attachment mechanism with a closed

⁹⁶ Definitely not a general periodisation ambition, it is instead an effort to capture the temporal stratification of a specific artefact at a specific site. Dividing the Great Moravian period into a number of sub-horizons is, in my opinion, unrealistic at this time (and perhaps may never be possible).



FIG. 37 | Gombíky from deeper graves in superposition at the church 3 in Mikulčice - i.e. the gombíky probably represent an earlier development horizon (one gombík in this group - from grave 540 - is not presented in the figure, because it was not preserved).

1 - grave 380; 2, 3 - grave 440; 4, 5 - grave 470; 6 - grave 490, 7-12 - grave 505; 13-15 - grave 553. Photo by J. Foltýn.

circle loop and clamp. All of the gombíky ranking among older finds according to the listed table have type B or C attachment systems (the attachment mechanism is not preserved on three gombíky). All specimens of this group have shell type construction A of two soldered hemispheres. In terms of material, another phenomenon among the graves of the earlier horizon is the use of gold,⁹⁷ as five of the seven included graves contained at least one gold gombík.⁹⁸ In contrast, there is a complete absence of gombíky made from gilded copper alloys. Based on the analysis of finds from the church 3, it is also clear that the gombíky from the earlier graves are small to medium in size (i.e. up to 3 cm in diameter). Another aspect is the high concentration of gombíky

of the earlier horizon in the graves of adults⁹⁹ - in the assessed group, only two specimens come from children's graves (grave 440, 10-14 years and 540, 5-9 years - this single gombík was not preserved and its analysis is based on information and simple figure in the inventory book); the remaining five graves of the earlier horizon belonged to adults (grave 380, 470, 490, 505, 553). The representation of male graves is also significantly higher than the general average - attributes of male grave goods were discovered in four out of seven graves (grave 380, 490, 540, 553).¹⁰⁰

97 Hana Chorvátová also mentioned the higher occurrence of gold in the early Great Moravian horizon (2015, 155).

98 At the same time, however, it is necessary to point out that as a result of the selection of comparative chronologically sensitive artefacts (spurs, earrings), a high concentration of rich graves appeared in the result, while graves with fewer goods or inventory with chronologically inconclusive artefacts were not included.

99 The hypothesis was tentatively published - see KRUPÍČKOVÁ 2020, 306-308. But again, it is necessary to highlight the selective focus of the analysis on rich graves, which may distort the result - see note 136.

100 At the same time, it is necessary to state that in most graves it was not possible to determine the sex anthropologically and it was estimated on the basis of significant grave furnishings - in the case of adults, the reason was the poor preservation of skeletons in hollow spaces. Although there is no anthropological determination of age-at-death for the individual in grave 380, the archaeological context suggests that it was an adult.



FIG. 38 | Gombíky from shallower graves in superposition at church 3 in Mikulčice - i.e. the gombíky probably represent a later development horizon.

1, 2, 3 - grave 328; 4, 5 - grave 364; 6, 7 - grave 398; 8 - grave 437; 9 - grave 454; 10, 11 - grave 471; 12-15 - grave 508; 16, 17 - grave 662; 18, 19 - grave 987; 20, 21 - grave 1182. Photo by J. Foltýn; 1, 2, 3, 9 - photo by M. Bárta.

According to the presented analysis, 10 grave units with 21 gombíky were included in the younger horizon of the graves. In terms of design, these gombíky include a full range of shell shapes (types A, B and C) and attachment mechanisms (also A, B, C). The disappearance of gold gombíky is conspicuous – no gold artefacts fall into the later horizon. The gold colour is replaced by the gilding of the base made from copper alloy. The production of silver gombíky remains popular. The decrease in gold gombíky needn't be related to the gradual decline in gold in the milieu of the Great Moravian elite, as might seem logical at first glance. A valid reason could be the emergence of a new decorative style of gombíky in the form of chasing intricate decorative motifs into their shells. Although we also know artefacts with chasing in form of palmettes made of gold (e.g. grave 380 and 490 from the church 3), their craftsmanship is a far cry from the aesthetic possibilities of certain silver artefacts.¹⁰¹ It is the gombíky decorated with chasing in form of plant (but also zoomorphic) ornament that at this moment appear to be typical representatives of probably the younger horizon of church 3 graves. A large silver gombík with a type A attachment mechanism (a separate circular loop secured by a clamp) and a shell formed from two hemispheres, sometimes with a soldered top collar (types A, C), can then be identified as a characteristic artefact. Unit 328 containing these gombíky can be labelled as a 'model' grave. A young woman (20–29 years old) was buried with three large silver gombíky (pair Inv. No. 142a/57 and 142c/57, unpaired Inv. No. 142b/57). Her grave also contained a large number of gold earrings (four artefacts with four baskets and three artefacts with seven beads with 'poppyseed' granulation). Silver gombíky are very finely crafted, with analysed artefact 142b/57 featuring the use of repoussé with evidence of soldering in nearly reaching the eutectic point (OTTENWELTER 2020B, 2–5; 2022, 179–180). I therefore venture to place the woman among the Great Moravian nobility, probably from the later church 3 burial horizon. The wearers of the gombíky included by the analysis in the (probable) later horizon of burials at the church 3 were children in almost half of the cases, sometimes very young ones (grave 437, 454, 471 and 662). But the representation of adults (grave 328, 398, 508, 987, 1182) and graves of men/with male attributes (398, 437, 471, 508) is also above average.¹⁰²

101 This hypothesis was also confirmed in a consultation with goldsmith and conservator M. Fořt: in his expert opinion, gold is too soft for detailed chasing.

102 For the possible distortion of the result of an above-average number of adults or males with gombíky, see notes 136–137.

4.4.10 Transformations of gombíky in space and time

Analyses of the actual artefacts and the anthropological data of their wearers led to the discovery of specific features of gombíky linked to certain age and gender groups. I subsequently set this data in a spatial and chronological analysis, which allowed me to follow the development of gombíky and draw certain conclusions for changes in Great Moravian society.

The image of the occurrence of gombík is not homogeneous, and gombíky change within cemeteries in terms of production, construction, material, size and quality. In order to allow comparisons of diverse sites, I again resorted to a qualitative determination of gombíky and I work with the term 'elite gombík' (this term appears for the first time in Chapter 4.1.10 *The contribution of research of technical and technological data of gombíky and the definition of their elite nature*). This time, however, I needed to distinguish as a whole individualised gombíky and those produced using sophisticated techniques for the Great Moravian elite from unified and possibly mass-produced types linked to broader social strata with the assumption of a chronological shift. For this reason, I included among elite gombíky all artefacts with soldered decoration and chasing that deviate from the unified concept of decoration (i.e. most types of gombíky). In the second group, probably mass-produced, there are undecorated gombíky (aside from those made of precious metals), gombíky with the application of rings or simple coarse sparse granulation, gombíky with a geometric ornament of eight fields, as well as glass gombíky.

Spatially, the largest concentrations of gombíky are connected to Great Moravian centres in the Morava River Region. It was found that at all three key Moravian sites (Mikulčice, Staré Město Uherské Hradiště – Sady, Břeclav-Pohansko) there are cemeteries with a high concentration of elite gombíky, but also burial grounds with a predominance of rather less ostentatious, often unified jewellery. The individual cemeteries are also not homogenous, with some grave units containing elite gombíky, others containing non-elite artefacts. Nevertheless, it is possible to classify the cemeteries into several qualitative levels. For example, at church 3 in Mikulčice, the quality level starts with the absolute 'top' in the form of gold, unique and extremely technologically demanding and high-quality gombíky. Therefore, in this context, copper alloy gombíky decorated with chasing serve as imitations intended for lower-ranking individuals of elite communities. On the other hand, the appearance of gombíky with chasing in the hinterland of the stronghold can always be understood as an important (elite) element, represented here in far fewer numbers than in the case of unified types of gombíky. Based on the typological groups of gombíky, the cemeteries at churches 2 and 3 in Mikulčice, but also those near the Na Špitálkách church in Staré Město, on St. Methodius Hill Uherské Hradiště – Sady and around the first church in Břeclav-Pohansko

were burial sites of the Great Moravian social elite; non-elite gombíky appear very rarely at all of these sites. The Na Valách cemetery in Staré Město, where burials were made over a long period of time, is specific in its varied typological spectrum of gombíky, thus revealing burials of various social strata, including the highest ones. However, elites furnished with luxurious gombíky are also represented in the cemeteries of other residential territories related to the presumed strategic locations of local Great Moravian centres, e.g. Přerov (Chromečková zahrada in Předmostí) and Rajhrad (Rajhradice). The occurrence of magnificent gombíky is further directed towards the key hillforts of central Bohemia and southwestern Slovakia in the direction of Nitra and Bratislava. However, only in the central locations in the Morava River Region are the original models of entire typological groups of elite gombíky concentrated, both with the potential of import (e.g. gold two-layered artefacts from grave 505) and probably of Great Moravian production (e.g. silver gombíky from grave 328). Cemeteries with the occurrence of fewer elite gombíky or with only rare graves with elite gombíky are mainly represented by sites in the hinterland of Great Moravian centres (Mikulčice-Panské, Prušánky), large necropolises near local centres (Dolní Věstonice), and in some cases also small rural cemeteries. These are usually small artefacts made of gilded copper alloy using the technique of simpler decoration made with chasing, full-surface granulation, etc. However, non-elite unified types of gombíky predominate at these sites.

I first theoretically modelled how the transformation of the gombíky was chronologically conditioned. The results can be summarised such that at the beginning of the development of gombíky there were luxurious (imported?) gold specimens with soldered decoration, which were later imitated on various material and qualitative levels. Production in Great Moravia itself, something of a 'golden age' of gombíky, is characterised above all by the chasing of sheet metal gombíky, increasing their size, the transformation of the attachment mechanism and the emergence of several distinctly popular typological groups (led by plant ornament in a cordate meander or an arcade scheme). In time, there is also production of several groups of unified imitations with the potential of serial production, and this development is apparently completed by the casting of lead pendants.

I subsequently verified this model using the method of vertical stratigraphy, i.e. by analysing the furnishings of graves from the church 3 in Mikulčice, lying in superpositions and containing gombíky together with other datable finds. The chronological analysis of the gombíky from the Mikulčice church 3 led me to classify some gombíky in either the earlier or later development period of the cemetery. The

basic characteristics of gombíky from the earlier horizon are small to medium sized, with an A body construction, a type B or C attachment mechanism, mainly soldered decoration, and made from gold or silver. In contrast, medium to large gombíky with type A or C body construction, the movable type A attachment mechanism, decorated with chasing and made of silver or copper alloy can be identified as typical representatives of the younger horizon.

Thus, several significant trends emerge from the analysis of the superpositions at the church 3. The gombíky from the older horizon of the graves are mainly smaller in size and with a high percentage of gold artefacts, often produced using extraordinary craftsmanship and achieving a high level of quality. The two-layered specimens from grave 505 or the gold pair with soldered filigree and granulation from grave 440 may have been exclusive imports, but they were certainly at least models for the production of a number of other gombíky. In the 'early' group, both the technical and technological parameters of the gombíky (size, attachment mechanism, material, production technology), as well as the high representation of adults and juvenile individuals, including men, as their wearers, correspond to the theoretical model. In the 'later' horizon, we see the transformation of gombíky into larger representative clothing applications with movable loops (though the split fixed loop does not disappear), made of silver or gilded copper alloy, which appear more often in the graves of children, including small children. Even in this case, the results of the vertical-stratigraphic analysis do not contradict the model.

It is remarkable and very scientifically encouraging that in a number of aspects the results of classic vertical stratigraphy agree with the conclusions resulting from the comparison of functional data observed according to the defined model. In both lines, they represent the earliest layer of gold artefacts mostly with soldered decoration from adult graves. They are only subsequently followed by silver gombíky with chasing (mainly in form of plant ornament), imitations made of copper alloys gradually increase, and gombíky appear more often in children's graves. Due to the limited number of assessable graves, vertical stratigraphy proved to be less sensitive in revealing some of the nuances captured in the modelling, e.g. the succession of patterns of a cordate meander and arcade made by chasing. Vertical stratigraphy also removed certain groups from the analysis, especially non-elite gombíky, which did not appear in the given sample of superposed graves. From this perspective, combining different methods seems to me to be a major advantage and an approach with great future potential, including the possibility of resolving hitherto unclear chronology questions.

5. The original purpose of gombíky in the living culture of Great Moravia

Gombíky disappeared from living culture one thousand years ago without written or iconographic records of how they were used, leaving us only metal artefacts without the textile parts of the clothing of which they were an integral part. The interpretation of gombíky is not yet entirely clear, and research published in the past has generally led to a plurality of opinion rather than a consensus. I therefore attempted to use theoretical models that are based on a comparison of data from several fields and within the framework of which the recurring development processes that (early medieval) society went through were described. It became clear already at the modelling stage that formulating questions leading to a single exclusive answer was misleading. At the same time, ambivalent interpretations of gombíky (fastener vs. pendant, status symbol vs. protective child amulet, etc.) do not indicate errors in the research conducted to date, but rather suggest a failure to accept the basic assumption that the gombíky encompassed multiple levels of interpretation.

The levels can be divided into three schematic groups which, simultaneously, are a part of all archaeological facts: practical function, social meaning and symbolic significance (for more details, see Chapter 3.2 *Interpretation possibilities of gombíky according to the theory of archaeology*; NEUSTUPNÝ 1986, 543; 1993, ESPECIALLY 155–159; 2010, 83–90). At the same time, each level of interpretation is variable in time and space, including the weight given to each level by historical society. In the following text, I attempt to interpret Great Moravian gombíky in this manner.

5.1 PRACTICAL FUNCTION OF GOMBÍKY

The practical function of gombíky includes their potential use as a garment fastener, necklace pendant or decorative garment appliqué.¹ All three of the

functions are supported in early medieval Eurasian fashion and are documented from other regions by preserved clothing and iconography.

The study of jewellery techniques, the structural design of gombíky and their dimensions is especially helpful for researching the practical function of gombíky. Smaller types of gombíky with compact decoration, easily manipulated into textile eyelets, could have been suitable for fastening purposes. A pair of gombíky with preserved textile eyelets from grave 498 at Mikulčice church 3 corresponds typologically to this characteristic. This is a compact type of polyhedral gombíky made of gilded copper alloy with coarse granulation and a glass application, referred to in the literature as lantern gombíky. They are small in size, hammered from two sheet metal and edged hemispheres; the upper hemisphere was furnished with an attachment system of variant B, i.e. with a fixed joint in the form of a split loop. A round glass inlay is set in the lower hemisphere. Other textile remnants of eyelets were discovered on unpreserved gombíky from grave 889 at church 11 in Mikulčice. In this case, they are also small artefacts made of two soldered hemispheres from a gilded copper alloy, with the application of coarse granulation in the lower part of the gombík and with a fixed attachment mechanism. Both mentioned types were therefore relatively suitable in terms of design and size for regular threading with textile eyelets (KRUPÍČKOVÁ ET AL. 2019). The presence of a fixed attachment mechanism and a smaller size (usually up to one centimetre in diameter) are also characteristic of clothing fasteners with loops, which we know from early medieval regions outside of Great Moravia (BERTI 2012, 187–211; HARRISON 1986, 262–264; IERUSALIMSKAJA 1978, 183–211; 2012, 293–295, 349; WALDBAUM 1983, 126, 134–136, PL. 46, 50–51). Therefore, I believe that it was smaller gombíky with a fixed attachment mechanism that could have been used to fasten clothing in Great Moravia. This description also applies to gombíky standing (according to the theoretical model and chronological analysis of graves in superpositions) at the beginning of their development in Great Moravia. These are most often small gold solitaires with a predominance of soldered decoration and a fixed attachment mechanism from the graves of adult men at the Mikulčice acropolis. Due to its compactness, this artefact could have served as a fragile but functional exclusive fastener on their clothing. Given that smaller gombíky with a fixed attachment mechanism from Great Moravian graves do not completely disappear even in

¹ The application of gombíky on head coverings and headbands and as hair ornaments has also been published. Working with the find circumstances at the Na Valách cemetery in Staré Město (HRUBÝ 1955, 92), V. Hrubý promoted this idea based on the frequent occurrence of gombíky around the skull and knowledge of the similar use of ornaments in other cultures, including Byzantium. At the Byzantine imperial court, decorated metal pendants were hung on ceremonial crowns, which apparently also inspired some other creators of royal insignia of the Early Middle Ages, including the preserved crowns of Alexius II Comnenus and St. Stephen's Hungarian Crown. And yet, I have not yet found convincing find circumstances of gombíky that would support such an interpretation of their use.

the course of further development, it is possible that some of the artefacts retained the fastening function for many years.

However, the characteristic Great Moravian gombík is represented by artefacts with chased decoration, usually of large dimensions between 2.5 and 3.5 cm, which would be much more difficult to pass through functional textile eyelets. For these types of gombíky, research of organic materials will not help us interpret their function, as we are not aware of any specimens with preserved textile remains. The structural transformation of these gombíky is also important. Their attachment mechanism usually consists of a circular loop secured by clamp and a ring, which is a system that allows the gombíky to move. The principle of a movable loop (albeit achieved in a different way) is known from Byzantine *pendilia* clothing applications, which served as ornaments on the edges of representative elite clothing (BOSELTMANN-RUICKBIE 2024). I believe that a movable attachment mechanism is fundamentally an unsuitable design for a clothing fastener and evokes, on the contrary, the intention to amplify the movement of the artefact on the clothing. The production of sound by the gombíky could also have been the motivation, as it was in large artefacts with chased decoration that most of the enclosed balls emitting sound when moving were found. These aspects lead me to the conclusion that at least some of the gombíky gradually ceased to serve their wearers as functional clothing fasteners and their main purpose in living culture shifted to the level of social representation, or the symbolic importance of the artefacts could also have been strengthened. In terms of development, these are probably later types of gombíky, as is suggested by the theoretical modelling and the superposition of graves at Mikulčice church 3. Thus, the transformation of the practical function of gombíky would shift over time from a clothing fastener to a decorative garment appliqué with the symbolism of belonging to a certain social and cultural group. Later gombíky are closely tied to elite burial grounds of central agglomerations or local elite cemeteries, the location of which is related to the advantageous position of hill-forts connected to strategic routes and does not depend on the distance from the main centres. Despite the initial common occurrence in adult graves, they gradually become outnumbered by children's graves with these gombíky.

The next stage in the development of gombíky is represented by the apparent reappearance of smaller gombíky with soldered decoration, but also the rise of gombíky made of (gilded) copper alloys with simple chased decoration. These groups have in common a less demanding production technology and a unified appearance, but otherwise there is a partial 'breaking' of the uniform parameters. All structural types of attachment mechanisms appear in this group, the emphasis on pairing decreases and graves more frequently contain only a single gombík. The variability in the use of gombíky is also underscored by their co-occurrence with glass

beads, including an accurately documented case of hanging a gombík on a necklace. At the cemetery in Dolní Věstonice - Na pískách, the glass gombík in grave 391/55 was demonstrably suspended from a necklace, as a textile string passing through its loop and the metal tube from a glass bead were preserved. In the other two graves (485/49 and 600/56), the gombíky were bonded to the beads by corrosion products. Some of the glass gombíky therefore undoubtedly served as pendants on a necklace, though this certainly can not be claimed for all finds (UNGERMAN 2007, 131; 2023B, 105-107; 253-255). Although a similar application could not be demonstrated for any type of metal Great Moravian gombíky, it is evident that with the expansion of mass production of gombíky for the less elite classes, their adaptation to rural fashion was occurring. Adherence to the clothing 'protocol' of the upper social class is less important in the context of these finds.

While the Great Moravian elite disappears from written sources and material culture at the beginning of the 10th century, and with it the characteristic fashion for 'classical' forms of gombíky (which continued for a certain period of time in Bohemia), gombík fashion continued to resonate in the folk environment. Apparently, the first (and last) cast lead gombík pendants can be associated with the end of the Great Moravian period, which in some regions replace ancient Hungarian cast buttons or pendants with a vertically divided body. Thus, the fashion for bead necklaces with spherical pendants persists especially in the Bijelo-Brdo inventory during the following 10th century.

Regarding the reconstruction of the upper parts of Great Moravian clothing with gombíky, a number of analogies have been comprehensively published in the past.² I consider the uniform placement and number of gombíky in graves throughout their entire development as an important guide with regard to the results of comparative research on Merovingian clothing. While the variability in the location of fibulae finds and also the great differences in their numbers led to the identification of a new clothing style in Merovingian society (MARTIN 1995, 40-71), in accordance with the constancy of the appearance of gombíky in graves, I do not expect a radical clothing change in elite fashion for Great Moravia. Gombíky standardly appear in graves in one or two (mostly paired) pieces. Their higher numbers can then be interpreted as more clothing items with gombíky in which the deceased individual was dressed. In the case of an extreme number of gombíky (5-6 artefacts), some gombíky typically appear in a non-functional (non-standard) position indicating the specific

2 It is possible to get an idea of the variety of necklines of early medieval clothing based on textile finds from Coptic Egypt, the Caucasus and the Nordic countries (THOMAS 1990; IERUSALIMSKAJA 1978; 2012; IERUSALIMSKAJA, BORKOPP 1996; GEIJER 1938). An overview of style variants is collected and tested in practical terms by reenactors from the ranks of amateur archaeologists; they were recently summarised in a clear manner by T. VLASATÝ (2018).

reasons for their deposition. The cut of the garment itself had to have at least one slit in the neckline so that the garment could be worn comfortably. For now, it remains unresolved whether the two gombíky indicate two slits or some different shaping of these parts of the garment. In the case of large gombíky with a movable attachment mechanism, which probably did not serve as fasteners, their application to the garment may not be related to the cut. It is even possible that they were not sewn but tied to clothing, so that it would be possible to use them only on selected occasions or to change several different pairs.

As such, I believe that the practical function of gombíky changed over time. From smaller artefacts apparently serving as fasteners, their development moved towards oversized artefacts that lose their practical function and become more of a representative status symbol. Gombík fashion echoes the 'rural' adaptation of more folk fashion, including the use of these artefacts as pendants on necklaces.

5.2 SOCIAL MEANING OF GOMBÍKY

Associated with complex social processes in all historical communities, clothing forms an inseparable part of the cultural system of society (KŘÍŽOVÁ 2001, 5). The importance of clothing accessories in the Early Middle Ages is particularly evident among the elites. The pinnacle in this direction is the diverse clothing of Byzantine and Frankish rulers described in written sources and reserved for well-defined representational and ceremonial occasions (BRATHER 2007, 190–194; BALL 2005, 11–78; HARDT 2004, 280–285). Although we cannot assume similarly flamboyant behaviour among Great Moravian nobility, it is clear that in order to obtain and maintain their positions they had to invest considerable resources in clothing to make a powerful impression on others. By means of luxurious imports, members of the elite demonstrated their supraregional contacts and control over trade, and by commissioning production for their own consumption, they demonstrated access to precious metals and the best craftsmen. Moreover, the nobility could use exclusive goods as part of a binding gift-giving strategy involving competitors, allies and members of the entourage (EARLE 1997, 143–192; SHORTMAN, URBAN 2004, 190–195; adaptation of the models on gombíky in KRUPÍČKOVÁ ET AL. 2023, 96–97). Mostly found in the cemeteries of Great Moravian centres, gombíky were already associated with the Great Moravian elite (for an overview of theories with citations, see Tab. 1) in the past and they play a very important role in the process of establishing and changing the highest layers of Great Moravian society. In an attempt to unravel the meaning of these artefacts, I linked their individual types to the estimation of the age and sex/gender of the individuals buried with them, and I followed the occurrence of gombíky in various locations within Great Moravian territory and in the broader Central European area, as well as the potential ideological origin of gombíky in more distant regions of Europe and Asia.

On the basis of the theoretical model and the analysis of the material from the agglomeration in Mikulčice, the oldest types of gombíky appearing in our territory can be identified as gold artefacts of extraordinary artistic quality and demanding production technology of smaller dimensions with a fixed attachment mechanism (for more information, see Chapters 4.4.8 *Modeling of the relative chronology of Great Moravian gombíky*, 5.1 *Practical function of gombíky*). With regard to social importance, the high-quality pure metal used in their production and the exclusivity of the artefacts (which only appear in small numbers) are essential for this group. Individuals buried with these artefacts are mostly adult males, followed by adult females and two juvenile individuals, one of each sex/gender. Graves with these gombíky typically also contained other luxurious grave goods. The closest analogies to these artefacts are the spherical sheet metal clothing applications from the Pannonian and Dalmatian parts of today's Croatia (BÜHLER 2014, 173–202; PETRINEC 2009, 160–162). I therefore interpret them (some of which aspire to exclusive imports) as the beginning of gombíky fashion in Great Moravia. Their wearers probably used these gold specimens as luxurious and therefore ostentatious clothing fasteners (see Chapter 5.1 *Practical function of gombíky*), and the gombíky simultaneously demonstrated their supraregional contacts and wealth. Gombíky were not established by the broader class of elites at this time and indicate affiliation with a narrowly defined adult (ruling) group; over time, some of these gombíky are also buried with these individuals, with a high percentage of burials belonging to males.

The higher numbers of certain types of technologically demanding gombíky with soldered decoration speak of their growing popularity among the broader nobility. In particular, types with boss decoration, gombíky with 'poppyseed' granulation and simpler types with full-surface granulation set in beds from smooth rings gradually reach graves; in terms of material, the use of silver is on the ascent. It is the loss of exclusivity reflected in the higher representation of these types that can be seen as proof of their popularity among the broader elite. At the same time, the continuing complex production technology and the use of precious metals point to the socially prominent and affluent customers of this fashion.

Gombíky with chased decoration can be considered a Great Moravian production innovation. With only a few exceptions, this technology abandons the use of gold metal and is mainly applied to silver artefacts and subsequently gombíky made from gilded copper alloy. The size of the gombíky increases and the design of the attachment mechanism changes, suggesting a transformation in their practical function as described in the previous chapter. Gombíky with chased decoration become very popular, thanks to which dozens of artefacts, mainly with plant ornamentation, have been preserved in graves. Gombíky become a fashion, a symbol of the established Great Moravian elite and a common part of the clothing

culture of the upper classes of society in the central agglomerations. The age of gombík wearers trends downwards towards younger age groups, including very young children. Gombíky are distributed, perhaps as part of a gifting strategy, to the elites at local centres, and as such we find them in elite graves at cemeteries in Rajhradice, Přerov-Předmostí and Olomouc. The path of elite gombíky also leads to Slovakia to the central hillforts in Nitra and Bratislava, and to local centres in Ducové, Bíňa, etc. Gombíky also make their way to Bohemia, where, over time, their characteristic craftsmanship appears (gombíky are made in separate jewellery workshops). Several individuals with Great Moravian material culture, including gombíky, were also buried in the Balaton agglomeration of Zalavár.

Among the Great Moravian nobility, there is an important transformation of the wearers of the gombíky, i.e. the individuals who are buried with them. The main concentration of elite gombíky, often chased pieces of large dimensions made of silver, shifts entirely towards children's graves. The reasons for the change in funeral rites are probably related to a combination of fashion trends, social changes and religious aspects. Fashionable gombíky, probably imitated gradually by more workshops, had to lose (at least) the aura of privilege and originality in the eyes of the elites. At the same time, there is apparently a common trend to limit burials with rich grave goods, especially those associated with manifestations of pre-Christian faith (which could also relate to the possible apotropaic magical significance of gombíky, as will be described in the following chapter). Children's funerals, on the other hand, could escape these measures for a longer period of time. While children were important agents of society for its future development, during their childhood they did not have functions, power or wealth. The impact of their death on society was therefore considerable, but the children themselves could only be bearers of new trends to a limited extent. These first had to be accepted as their own by adults.³ At the same time, if we see in the method of burial an effort to eliminate the social tension caused by death (HALSALL 2010, 207–208), we can interpret rich child burials – including those with gombíky – as proof of the society-wide significance of the death of elite children. It is possible to connect these manifestations with the instability of a society unsure of its future and which emphasises in this way that maintaining the status quo in the form of handing over power to descendants is not only a key, but apparently also a threatened priority for it (HALSALL 2010, 175–176).⁴

3 A parallel is found in modern ethnography in the transition from rural fashion to urban fashion, which progressed through the society in the man – woman – boy – girl sequence (described for Croatia, beginning of 20th century – MARGARETIĆ 2011, 75; 2017, 27).

4 For the time of Great Moravia, we can also consider an attempt to establish hereditary functions (we know that apparently only after Svatopluk's death did power pass to his son; the previous princes were not related in a direct bloodline (TŘEŠTÍK 1997, 279, 285).

The high incidence of gombíky in girls' graves remains a question. The explanation can be quite prosaic if we consider that children's graves are distinguished by gender on the basis of the accompanying grave goods, not by anthropological estimation. Apart from the riding gear of a few elite children at the acropolis, boy graves are difficult to identify archaeologically. Therefore, finding 'missing' boys among the number of gender-unspecific graves of children with gombíky is not ruled out. However, some circumstantial evidence suggests that the trends appeared earlier in males than in females. This would be indicated by a detailed analysis of the development of gombíky with chased decoration at the acropolis, where a new trend appears gradually in the order man – woman/boy – girl (see the changes in the typology of gombíky described in Chapter 4.3.7 *Gombíky as identifiers of social status*). It is therefore possible that gombíky disappear earlier from male than female graves, and also earlier from boys' than from girls' graves.

The development of gombíky culminated in the emergence of cheaper and largely uniform imitations made of copper alloys, which can be found among gombíky with the soldered application of rings or simple coarse sparse granulation, gombíky with a geometric ornament of eight fields, and also in a group of glass gombíky, which are found in the greatest numbers outside the centres of Great Moravian agglomerations.⁵ The rules on the use of artefacts begin to break down in the lower social classes – gombík pairings decrease and they are hung as pendants on necklaces, which corresponds to the introduction of gombíky in the 'rural' fashion of glass beads. Gombíky therefore no longer function as a symbol of elites and high social status, but are an object of community fashion, adapted to the clothing habits of ordinary society. Outside elite cemeteries, the main age group buried with gombíky is children. The only cast and hence truly mass-produced gombík-like artefact is lead pendants from the end of the Great Moravian period, which, however, did not become more widespread, apparently due to the disappearance of the structure of Great Moravian centres. In the post-Great Moravian period, there is a partial use of cast ancient Hungarian buttons and pendants, which become part of necklaces in the Bijelo-Brdo cultural circle. The late production of gombíky (and their placement in graves) fades in Bohemia, from where, paradoxically, some artefacts could have made their way back east, as is documented by Slovak finds of gombíky similar to the products of Bohemian workshops (Nitra-Amfiteáter, Galanta-Papföld; see Chapter 4.4.4 *Southwest Slovakia*).

The social meaning of gombíky therefore undergoes major changes in the course of the 9th and on the beginning of the 10th century. The beginning was apparently marked by exclusive gold clothing fasteners, perhaps imports, intended for the absolute top of

5 However, the emergence of unified types of gombíky was probably not completely parallel, and some types may be slightly older and others younger in terms of absolute dating.

society. Through the spread of production-intensive types made of precious metals among the wider elite, gombíky become an identifier of the Great Moravian nobility. Their practical function is suppressed while ostentation is emphasised by increasing their size. The spectrum of production techniques expands and these become a distinctive regional Great Moravian expression (chased decoration), which corresponds to the importance of gombíky as a status symbol of Great Moravian elites. The disappearance of gombíky is associated with the end of their burial in adult graves and the emergence of a spectrum of less production-intensive and qualitatively inferior imitations made of copper alloys, which grew into the serial production of uniform artefacts associated with the transition to their casting into moulds. But this mass production no longer had the opportunity to be fully applied, as we know from other regions of Europe, as a result of the changes in society after the fall of the ruling Great Moravian dynasty.

5.3 THE SYMBOLIC SIGNIFICANCE OF GOMBÍKY

Due to its close connection to the human body, clothing represents one of the most individual manifestations of material culture while also reflecting the spiritual level of the people wearing the clothing. Clothing should be seen in a historical context as an effective means of magical protection against invisible forces, creating a symbolic barrier between the naked body and the outside world. At the same time, it is necessary to count not only its textile component, but also related clothing accessories that complete the overall appearance (KŘÍŽOVÁ 2001, 5). The apotropaic purpose of clothing can therefore also be assumed in the Great Moravian environment, and gombíky must also have played a part in it.

The symbolic (protective) significance of gombíky can be seen on several levels of their technical and technological parameters. The basic characteristic of the artefacts is their spherical shape and given that this form is essential for gombíky (see Chapter 4.1.7 *Shape*), we can assume that it was important to their creators and that they stuck to it despite design changes, the adaptation of jewellery technologies and the integration of new decorative motifs. At the same time, the spherical shape is also characteristic of a number of other early medieval clothing components from various regions, which are also interpreted as apotropaic. An interesting visual similarity to the placement of pairs of gombíky on collarbones is offered by Byzantine tunics, which we know from iconography and based on physically preserved artefacts from the desert environment of Egypt. These late Antique tunics have woven or sewn textile bands around the neckline called *clavi*, which originated in the fashion of Roman senators and riders. *Clavi* appeared in pairs on tunics, where they figuratively 'hung' from the shoulder blades. They could be terminated by a textile circle or oval with a motif of apotropaic significance. Symbolic protection of their wearer was the

main reason for applying *clavi* to Byzantine clothing (Fig. 39: 1; THOMAS ED. 2016, 44, 47, 60, 109, 119, 130; MORGAN 2018, 44–57). Another example of spherical protective amulets extremely similar to gombíky are *bound pendants* known mainly from the Early Middle Ages in Western Europe, but which are also found in exceptional cases in Central and Southeastern Europe. The classic design is represented by crystal balls set in two crossing metal bands and furnished with an attachment loop (KORNBLUTH 2015, 50, 54; 2019, 130–132). In Moravian territory, glass spheres found in a burial context in Břeclav-Pohansko and in settlement layers at the Staré Město - Na Valách site (I deal with *bound pendants* in greater detail in Chapter 2.1.1 *Glass gombíky*) are attached in a similar manner.

The symbolic significance of gombíky can also be found in motifs on artefacts with chased decoration. These motifs present parallels to spiritual symbols that originate outside the spatial boundaries of Europe and the temporal boundaries of the Early Middle Ages. The motif of a stylised palm leaf refers to deep Antique traditions, while the bird ornamentation refers to the Sasanian cultural sphere. Likewise, there are varied analogies of the decorative schemes of which these motifs are a part. The arcade-like arrangement of motifs is known from early medieval Central Asian toreutics, while placing animals and hunting scenes in medallions is typical for Asian and Byzantine silks. Various types of meanders, including heart-shaped, dominate stonework elements of Dalmatian and northern Italian architecture. Chased motifs on gombíky represent, in a way, an adaptation of period fashion, which artisans also imprinted on the shells of these artefacts. At the same time, it is possible to formulate the opposite idea, namely that it is a contemporary artistic expression of fundamental spiritual principles that accompany humanity continuously in time and space. The complexity of the issue can be specifically demonstrated, for example, on the motif of a bird. Based on their detailed portrayal and in accordance with Central Asian written sources, birds can represent, e.g. an illustrative fight between good and evil (the motif of a bird with a snake in its beak does not appear on gombíky), but they can also be a symbol of power (KOHOUTKOVÁ 2008, 33–45) (the motif of a bird with a drop-shaped necklace in its beak - on gombíky documented on the artefact from grave 251/49 in Staré Město - Na Valách, HRUBÝ 1955, 450–451, TAB. 61: 3). However, most Moravian gombíky with a bird motif contain no attribute that would clarify the intended significance, and their motifs are largely stylised compared to potential Oriental or Mediterranean patterns. Moreover, the motif of the bird must be considered universally popular in all cultures, though only some have preserved written sources that would explain the significance of the motif more closely (KOHOUTKOVÁ 2008, 46–47). As such, it therefore seems on a general level that we cannot talk about the original or only significance of the motifs, but rather about the application of popular symbolism, which could be temporally



1a



1b



1c



2a



2b



2c

FIG. 39 | Clothing apotropaic objects of a similar shape or application as gombíky. 1 - Clavi on Byzantine tunics; 2 - bound pendants from the graves of Merovingian women.

1a - Wool tapestry with figures dressed in tunics with clavi (Egypt, 7th -9th century), after Thomas ed. 2016, 109; 1b - detail on clavi on tunic, Panopolis (Egypt, 6th century), after Thomas ed. 2016, 47; 1c - tunic with clavi (Egypt, 450 -650), Victoria and Albert Museum London, accession number T.7-1947, photo by Victoria and Albert Museum London, available online: <https://collections.vam.ac.uk/item/O119606/tunic-unknown/>; 2a - merovingian rock crystal ball pendant, Artres (France, 6th century), British museum, museum number AF.518, photo © The Trustees of the British Museum, CC BY-SA 4.0, available online: https://www.britishmuseum.org/collection/object/H_AF.518; 2b - sphere rock crystal in a gold mount, Picquigny (France, 400 -800), Ashmolean Museum, Oxford, accession number 1909.661.a, photo © Ashmolean Museum; 2c - sea urchin amulet, Lindholm Høje, Nørresundby (Denmark), Viking Period, photo by Søren Bo Andersen, available online: <https://www.geolsba.dk/echinoids/dan/Galerites-vikingsmykke.html>.

and regionally variable in significance. The motifs on the gombíky were probably attributed by their creators or wearers some kind of figurative significance, which, however, cannot be reliably interpreted without written sources. The exception is the Christian symbolism spreading in Moravia in the 9th century and persisting to the present day with uninterrupted continuity, thanks to which its interpretation is obvious to us even today. Christian motifs on gombíky are presented by the rendering of the cross, either explicitly in chased or granulated form, or 'covertly' within the decorative patterns of certain types of gombíky (Fig. 40). The use of Christian symbolism is then much more common on gombíky from Bohemia, where it appears on artefacts that are representatives of local production from the circle of the 'Prague workshop' (see Chapter 4.4.5 *Bohemia*).

In addition to the visual characteristics on the level of symbolic interpretation, some gombíky also create a sound effect. It is this sound component of archaeological artefacts that is often associated with their protective magical effects (SMETÁNKA 2003, 11-16). In addition, the sound effect links gombíky with rattles, which are relatively abundant at the burial grounds of the Great Moravian countryside, but also in smaller quantities at the cemeteries of central agglomerations. Like gombíky, rattles are especially characteristic of children's graves

(UNGERMAN 2007, 231, 232). The high mortality rate of children in historical European societies led to the development of a tradition of apotropaics strongly linked to their youngest members (KŘÍŽOVÁ 2011, 141-163), and this trend is also evident in the Central European Early Middle Ages. The theory is thus offered that gombíky predominate in children's graves in order to serve (like rattles) as an effective apotropaic object. However, an analysis of the age and sex/gender of individuals with sound gombíky from Mikulčice did not confirm their increased occurrence in children's graves. On the contrary, these artefacts were represented in different age groups of individuals of both sexes/genders. In my opinion, the explanation lies in the fact that the sound effect is especially characteristic of large gombíky with chased decoration. These are therefore artefacts that were used as a status symbol, a purpose that outweighed their use as a children's apotropaic object. A simple explanation could also be the low sound intensity of the gombíky, which does not reach the volume and therefore the effect known for rattles with a hole.

With gombíky as a clothing item, we can rightly assume that they were an integral part of the symbolic significance of the clothing. This is particularly evident in their shape, artistic symbolism and sound effect, which are the essence of the apotropaic magical effect of gombíky.



FIG. 40 | Christian symbolism visible to varying extents in the motifs or patterns of Mikulčice gombíky.

1 - Mikulčice, settlement find, Inv. No. 3083/78; 2 - Mikulčice, church 2, grave 128; 3 - Mikulčice, church 3, grave 505; 4 - Mikulčice, settlement find, Inv. No. 989/57; 5 - Mikulčice, church 3, grave 498. Photo by M. Bárta.

6. Summary and thoughts on the future research

The presented work processes typical artefacts of Great Moravian burial archaeology - gombíky - by comparing a theoretical model with a multidisciplinary analysis of data linked to the artefacts from the Mikulčice agglomeration in combination with the basic demographic characteristics of their wearers. The results of these analyses were compared with the occurrence of gombíky at other Great Moravian sites and with the extra-regional representation of gombík-like artefacts. On the basis of the model, the variability of the gombíky was placed in a relative chronological framework verified by the method of vertical stratigraphy.

First, I created a theoretical model identifying three theses as the basic starting points of my modelling: 1) a targeted combination of functional and intentional data is necessary, i.e. conscious work with data indicating a once living culture and data related to the ritual level of burial; 2) to decipher the purpose of artefacts in living culture, it is appropriate and necessary to simultaneously follow three levels of interpretation, namely practical function, social meaning, and symbolic significance; 3) the purpose of artefacts in a living society was variable depending on its dynamics - the goal of the interpretation of artefacts is therefore to capture the temporal and spatial line of development, not to find a single (correct) answer; the driver of early medieval dynamics was the elite, through which supraregional ideas spread.

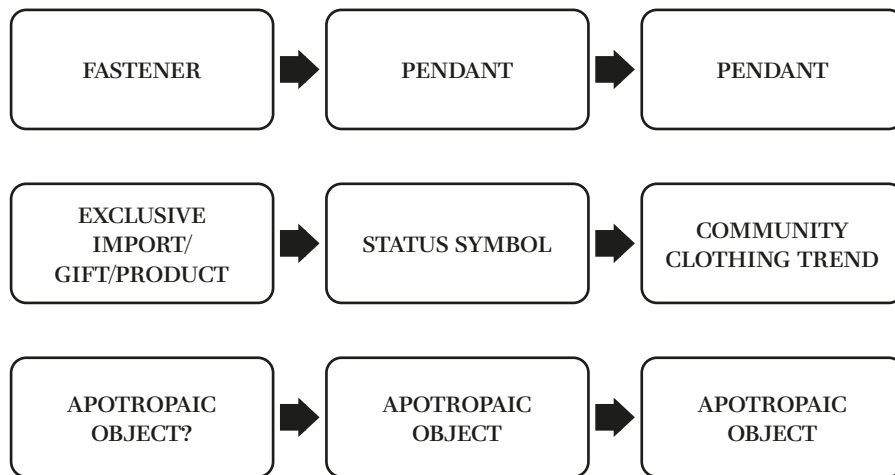
With an awareness of these starting points, I subsequently proceeded to the analyses. First, I analysed the functional data of the gombíky, which have an undistorted testimonial capacity with respect to the former society because they are not related to the burial ritual. This involved a description of the artefacts themselves, including a description of their technical and technological data; jewellery techniques and their complexity and quality of execution, the construction of the shell and the attachment system, material, dimensions, shape, the presence of objects inside the gombíky and textile residues on their surface were recorded. By combining these groups of data, a basic structure of typical gombík characteristics emerged. For example, small size, soldering techniques, and a fixed attachment mechanism predominate on gold gombíky, whereas a medium to large size together with a movable attachment mechanism dominate silver gombíky with chased decoration. A reduction in size and

simplification of decoration then typically occurs on gombíky made of copper alloys.

But it was also important to appropriately combine functional parameters with intentional data in cases where this could help with an interpretation. From the find circumstances of graves with gombíky influenced by the intentional level of the burial, I analysed in particular the number and location of gombíky in the grave and their joint occurrence with beads. Based on analyses of the find context, it was possible to state a smaller representation of paired gombíky among less elite gombík types or a more frequent coexistence of less elite types with beads.

The technical and technological parameters of the gombíky and selected aspects of their find context were further combined with the estimation of the age and sex/gender of the individuals buried in the graves with them. By comparing these spheres of functional data, different clusters were revealed in the processed assemblage, representing the concurrence of certain properties of artefacts and characteristic groups of their bearers. These were, for example, elite gold gombíky found in the graves of adult men in the cemeteries of the Mikulčice acropolis and silver gombíky with soldered bosses in the graves of adult women found there. A fundamental finding is the smaller representation of burials of adults with gombíky outside elite cemeteries as well as the typological connection of gombíky to certain age and sex/gender groups in different parts of the Mikulčice stronghold. These phenomena testify to the gradual spread of fashion trends within the stronghold and to changes in the social meaning of gombíky.

I compared the Mikulčice gombíky, which underwent a detailed analysis, to the occurrence of gombíky in cemeteries throughout the entire Great Moravian region, but also to their representation in territories with strong political-diplomatic ties to Great Moravia (southwestern Slovakia, Bohemia) and in western Hungary. The occurrence of elite gombíky in Great Moravian cemeteries is the highest in the three main agglomerations in the Morava River Region (Mikulčice, Staré Město - Uherské Hradiště and Břeclav-Pohansko). Other cemeteries with gombíky do not show a linear continuity with distance from the centres, but can be related to local centres - strongholds located along key routes. Cemeteries with gombíky can be divided into those with a predominance of elite types of gombíky (Rajhradice, Přerov-Předmostí - Chromečková zahrada) and with



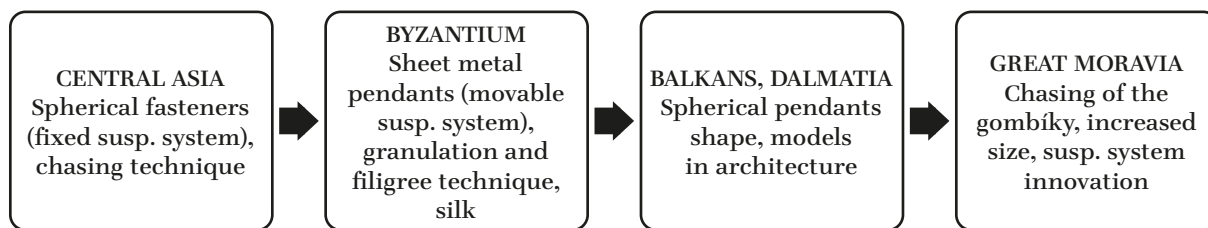
TAB. 48 | Synchronisation of interpretive levels of gombíky.

a dominance of imitations or mass-produced artefacts (Dolní Věstonice, Rajhrad). Gombík finds are rare at rural cemeteries (both elite and serial products). Southwestern Slovakia has the greatest typological continuity of gombíky with finds from the core territory of Great Moravia. There is no evidence of authentic local production of gombíky, even though reminders exist of the fashion of gombík-like artefacts as far back as the 10th century in the use of ancient Hungarian cast buttons and pendants and in the form of several probably late Bohemian imports. In Bohemia, the connection to Moravian production is also evident for some of the gombíky, but masterfully crafted specimens come from there only in connection with the local production centre referred to in the literature as the 'Prague workshop'. These gombíky are characterised by distinctive decoration in the form of the more frequent application of glass inlays of larger sizes, a higher representation of round and now also diamond-shaped medallions, braided edging and more frequent Christian symbolism. The absolute predominance of the movable attachment system and the considerable size and fragility of the thin-walled gombíky testify to their probable social meaning and symbolic significance. Most of the gombíky from the cemeteries of the Zalavár agglomeration south of Lake Balaton are typologically related to Moravian production, but their occurrence is by no means heavy and is limited to single-digit numbers of graves at individual sites. In exceptional cases, it is also possible to find artefacts technologically referring to a non-Moravian (own?) production centre apparently following a longer tradition of Balkan and Dalmatian production, where the closest models for the production of Great Moravian gombíky appear, as is suggested by finds of gold artefacts with soldered decoration from the end of the 8th and the beginning of the 9th century from the Croatian sites of Trilj and Brestovac.

The result of the analyses is a description of the purpose of gombíky in the living culture of Great Moravia. For the interpretation, I relied on the schemes of the practical function, social

meaning and symbolic significance of the artefacts. The 'weight' of these interpretive categories of gombíky changed in Great Moravian society, and the reconstruction of their purpose is simultaneously a description of their development. I assume that the gombíky were initially small precious metal artefacts (up to 2 cm in diameter), bound to a narrow circle of adult elites at the acropolis, and produced by the technology of soldered filigree and granulation. Some specimens exhibiting extraordinary technological processes and masterful jeweller's craftsmanship could be identified as imports, e.g. a pair of two-layered gombíky from grave 505 and a pair of gombíky with soldered filigree and granulation from grave 440 at church 3 from Mikulčice. Due to the fixed attachment mechanism of the entire group of these specimens and their compact size, it is possible to consider their practical function as an exclusive clothing fastener. In the next phase, represented by Great Moravia's own production of gombíky, several popular typological groups expand and eventually stabilise. Production on a more massive scale mainly includes silver artefacts, and in addition to the soldered decoration, chasing of the surface of the gombíky also became popular. The circle of gombík users subsequently expands to the broader elite of the central agglomerations, including children, and gombíky also extend to members of local elites politically connected to the agglomerations in the Morava River Region. In this phase, the gombíky increase in size, their paired use is established, and a new type of attachment mechanism is developed, one that evokes an alternative method of applying gombíky to clothing. These changes are probably related to the decline of the fastening function of gombíky, which continue to be more of a decorative status symbol and apparently also a gift from the ruling dynasty to the broader elites. At this stage of the rise of gombík fashion among the elite, one can assume the beginnings of their popularity and imitation among the broader population. The first phase of imitation is represented by artefacts made of gilded copper alloy in a lower quality design, which

TAB. 49 | Gombíky as an example of cultural diffusion. The transfer of the idea (*Idee*) is manifested as a local stylistic variant (*Stilvarante*) after Brather.



are still concentrated in the cemeteries of central agglomerations, but the individuals buried with them probably represent a broader social plateau, which we can look for among more remote family members of elites or non-family members of households (*familia*). Gradually, uniform types of gombíky with the potential of serial production also appear and are used with greater variability (not in pairs, hung from necklaces). The fashion wave also affects less elite environments in the hinterland of Great Moravian centres or developing local centres. The fashion for gombíky could even have faded after the fall of the Great Moravian elites, in Moravia by placing 'folk' production in graves, in southwestern Slovakia by the alternative use of ancient Hungarian buttons and pendants, and in Bohemia by the continued production of independent workshops. It is not entirely clear whether, in addition to the change in function and meaning, there were also changes in the sensory level of the understanding of gombíky. Clothing and all of its components had a standard apotropaic function for its wearers, which could have been pushed into the background for a certain amount of time, but did not completely disappear. For example, there could have been changes in ornamentation referring to changes in the spiritual system to which the apotropaic object was linked. This would explain the amplification of Christian symbolism on the gombíky of Bohemian production as evidence of the establishment of a new faith and its public proclamation.

The theoretical model and the results of the multidisciplinary analysis were also supported by the classic method of vertical stratigraphy, which was applied to graves in superpositions from Mikulčice church 3. The graves with gombíky deposited below yielded specimens of small to medium size, mostly of gold, with some from silver, usually with soldered decoration with a fixed attachment mechanism. In contrast, the graves that overlaid them mostly contained medium to large gombíky, mostly made of silver or copper alloys, with chased decoration and a movable attachment mechanism. These chronology conclusions therefore correspond to the dynamics of gombík development described above.

The basic question in the introduction was the definition of the purpose of gombíky, which disappeared from living culture and for which we do not find direct parallels. The answer, as already

written above, cannot be unambiguous. Gombíky went through dynamic changes in line with the development of society, which I tried to capture and describe in the framework of the processed assemblage. Based on the presented research, I believe that gombíky functionally transformed from clothing fasteners to pendants, in terms of meaning from exclusive clothing fasteners to a status symbol to a community clothing trend, while at the same time maintaining a certain apotropaic purpose for their wearers (Tab. 48).

Another set of introductory questions focused on the origin of gombíky. In general, it can be said that the emergence of gombíky would not have been possible without the symbiosis of several cultural influences that were not native to Great Moravia. There was brisk diplomatic and commercial activity throughout the known early medieval world, stretching from Western Europe to Eastern Asia. These aspects of communication and distribution enabled the transmission of thoughts (ideas) projected even on the artefactual level. Communities worked with multiple currents of thought at once, enriching them with their own cultural aspects, leading to the creation of local variants. Thus, the creation of Moravian gombík was aided by cultural manifestations coming to Europe from Asian and Italian-Byzantine milieux, enriched by other impulses from the Balkans and Dalmatia. Directly in Great Moravia, another level of integration of cultural currents took place, most evident in the technology of chasing gombík shells (Tab. 49). If chasing can be described as a Great Moravian stylistic variant, the question is who considered it their own here, or who mastered brilliant chasing in Moravia. Could it have been an Avar tradition? It is one of the hypotheses that would require detailed technological investigation of the artefacts to verify. No less interesting is 'searching for the end' of gombíky. Their apparently last cultural manifestation is production in Bohemia in the 10th century before subsequently disappearing from archaeological sources, apparently in connection with the end of the direct cultural continuity of Great Moravia.

In addition to these results regarding gombíky, I consider a promising 'side effect' of testing new possibilities for working with funerary data outside the framework of classical chronology and typology *per analogiam*. The adventure of discovering clusters of combined data and their interpretation through

theoretical models can be a way to move the seemingly unexplored history of Moravia in the 9th century into a much more concrete form, including the detection of new historical contexts. In this regard, funerary sources represent enormous unexploited potential, which can significantly complement knowledge from more advanced modelling, e.g. in the area of the early medieval settlement structure.

In order to clarify the outlined results, further detailed research of the properties of the investigated artefacts will be key - from the production technology and material composition to the monitoring of traces of wear; all with the addition of experimental

activities. It would be ideal to be able to analytically compare artefacts from multiple sites and, if possible, multiple regions. Additional great potential is found in the mass sequencing of DNA by the emerging field of archaeogenetics. With regard to the outlined chronological sequence, but above all for the clarification of the social aspects of the burial rite, archaeogenetic data will be key, analyses of which are now driving archaeological research. At the same time, future research on gombíky would benefit from a detailed comparison with similar research on other types of jewellery and clothing components.

7. Long tables

TAB. 23 | Occurrence of gombíky in connection with the due to sex/gender and age-at-death of individuals buried at the acropolis of the Mikulčice-Kopčany agglomeration.

Individuals/burial grounds ⁴	Church 2	Church 3 + 'Palace'	Church 4	Church 11	Church 12	Acropolis, total
Individuals, total	236	594	106	81	88	1105
Adults	118	277	50	39	36	520
Adults % (of all individuals)	50%	46%	47%	48%	41%	47%
Children	83	189	40	35	43	390
Children % (of all individuals)	35%	32%	38%	43%	49%	36%
Juvenile	10	23	6	2	7	48
Juvenile % (of all individuals)	4%	4%	6%	3%	8%	4%
Indeterminable individuals	25	105	10	5	2	147
Indeterminable individuals % (of all individuals)	11%	18%	9%	6%	2%	13%
Individuals with gombíky	36	63	3	9	5	116
% of individuals with gombíky (of all individuals)	15%	11%	3%	11%	6%	11%
Adults with gombíky	12	23	-	5	1	41
Adults with gombíky % (of all adults)	10%	9%	-	13%	3%	8%
Adults with gombíky % (of all individuals with gombíky)	33%	37%	-	56%	20%	35%
<i>M</i>	6	9	-	2	-	17
<i>M</i> %	17%	14%	-	22%	-	15%
<i>F</i>	6	13	-	2	1	22
<i>F</i> %	17%	21%	-	22%	20%	19%
Indeterminable	-	1	-	1	-	2
Indeterminable %	-	2%	-	11%	-	2%
Children with gombíky	16	29	3	4	4	56
Children with gombíky % (of all children)	14%	16%	8%	11%	9%	14%
Children with gombíky % (of all individuals with gombíky)	44%	46%	100%	44%	80%	48%
<i>M</i>	2	3	-	-	-	5
<i>M</i> %	6%	5%	-	-	-	4%
<i>F</i>	2	10	-	-	1	13
<i>F</i> %	6%	16%	-	-	20%	11%
Indeterminable sex/gender	12	16	3	4	3	38
Indeterminable sex/gender %	33%	24%	100%	44%	60%	32%
Juveniles with gombíky	3	3	-	-	-	6
Juveniles with gombíky % (of all graves of juvenile)	30%	13%	-	-	-	13%
Juveniles with gombíky % (of all individuals with gombíky)	8%	5%	-	-	-	5%
<i>M</i>	-	1	-	-	-	1
<i>M</i> %	-	3%	-	-	-	1%
<i>F</i>	2	2	-	-	-	4
<i>F</i> %	6%	5%	-	-	-	3%
Indeterminable sex/gender	1	-	-	-	-	1
Indeterminable sex/gender %	3%	-	-	-	-	1%
Indeterminable age with gombíky	5	8	-	-	-	13
M with gombíky, total	8	15	-	2	-	25
% M of all individuals with gombíky	22%	24%	-	22%	-	22%
F with gombíky, total	10	27	-	2	2	41
% F of all individuals with gombíky	28%	43%	-	22%	40%	35%
Indeterminable sex/gender with gombíky, total	18	21	3	5	3	50
% indeterminable sex/gender of all individuals with gombíky	50%	33%	100%	56%	60%	43%

TAB. NOTE 4 Data of buried individuals are based on a revised anthropological analysis by J. Brůžek, P. Velemínský, J. Velemínská et al. (partly published - see Zazvonilová et al. 2020).

TAB. 24 | Occurrence of gombíky in connection with the sex/gender and age-at-death of the individuals buried at the extra-mural settlement of the Mikulčice-Kopčany agglomeration.

Individuals/burial grounds ⁵	Church 6	Church 7	Church 8	Church 9	Church 10	Kostelisko	Klášteřísko	Žabník	Extra-mural settlement, total
Individuals, total	210	16	25	49	11	455	324	76	1166
Adults	89	7	7	33	-	238	164	36	574
Adults % (of all individuals)	42%	44%	28%	66%	-	52%	51%	47%	49%
Children	97	9	12	14	-	173	129	37	471
Children % (of all individuals)	46%	56%	48%	28%	-	38%	40%	49%	40%
Juvenile	8	-	6	1	-	29	19	3	66
Juvenile % (of all individuals)	4%	-	24%	2%	-	7%	6%	4%	6%
Indeterminable individuals	16	-	-	1	11	15	12	-	55
Indeterminable individuals % (of all individuals)	8%	-	-	2%	100%	3%	4%	-	5%
Individuals with gombíky	16	2	1	6	-	29	9	-	63
% of individuals with gombíky (of all individuals)	8%	13%	4%	12%	-	6%	3%	-	5%
Adults with gombíky	1	-	-	2	-	6	-	-	9
Adults with gombíky % (of all adults)	1%	-	-	6%	-	3%	-	-	2%
Adults with gombíky % (of all individuals with gombíky)	6%	-	-	33%	-	21%	-	-	14%
<i>M</i>	-	-	-	2	-	3	-	-	5
<i>M</i> %	-	-	-	33%	-	10%	-	-	8%
<i>F</i>	1	-	-	-	-	3	-	-	4
<i>F</i> %	13%	-	-	-	-	10%	-	-	6%
<i>Indeterminable</i>	-	-	-	-	-	-	-	-	-
<i>Indeterminable</i> %	-	-	-	-	-	-	-	-	-
Children with gombíky	14	-	1	3	-	22	8	-	48
Children with gombíky % (of all children)	14%	-	8%	21%	-	13%	6%	-	10%
Children with gombíky % (of all individuals with gombíky)	88%	-	100%	50%	-	76%	89%	-	76%
<i>M</i>	2	-	-	-	-	1	-	-	3
<i>M</i> %	13%	-	-	-	-	4%	-	-	5%
<i>F</i>	2	-	1	2	-	9	2	-	16
<i>F</i> %	13%	-	100%	33%	-	31%	22%	-	25%
<i>Indeterminable sex/gender</i>	10	-	-	1	-	12	6	-	29
<i>Indeterminable sex/gender</i> %	63%	-	-	17%	-	41%	67%	-	46%
Juveniles with gombíky	1	-	-	-	-	1	-	-	2
Juveniles with gombíky % (of all graves of juvenile)	13%	-	-	-	-	4%	-	-	3%
Juveniles with gombíky % (of all individuals with gombíky)	6%	-	-	-	-	4%	-	-	3%
<i>M</i>	1	-	-	-	-	-	-	-	1
<i>M</i> %	6%	-	-	-	-	-	-	-	3%
<i>F</i>	-	-	-	-	-	1	-	-	1
<i>F</i> %	-	-	-	-	-	4%	-	-	3%
<i>Indeterminable sex/gender</i>	-	-	-	-	-	-	-	-	-
<i>Indeterminable sex/gender</i> %	-	-	-	-	-	-	-	-	-
Indeterminable age with gombíky	-	2	-	1	-	-	1	-	4
<i>M</i> with gombíky, total	3	-	-	2	-	4	-	-	9
% <i>M</i> of all individuals with gombíky	19%	-	-	33%	-	14%	-	-	14%
<i>F</i> with gombíky, total	4	-	1	2	-	13	3	-	22
% <i>F</i> of all individuals with gombíky	19%	-	100%	33%	-	45%	33%	-	35%
Indeterminable sex/gender with gombíky, total	10	2	-	2	-	12	6	-	32
% indeterminable sex/gender of all individuals with gombíky	63%	100%	-	33%	-	41%	67%	-	51%

TAB. NOTE 5 Data of buried individuals are based on a revised anthropological analysis by J. Brůžek, P. Velemínský, J. Velemínská et al. (partly published - see ZAZVONILOVÁ ET AL. 2020). Anthropological data of individuals from Church 10 are not available. Data of individuals from Žabník published in BARTOŠKOVÁ 2019, 21, 141.20).

TAB. 25 | Occurrence of gombíky in connection with the due to sex/gender and age-at-death of individuals buried in the hinterland of the Mikulčice-Kopčany agglomeration. (Table and notes continue on next page.)

Individuals/burial grounds	Josefov- Záhumenice ⁶	Kopčany- Kačenáreň ⁷	Kopčany- Saint Margaret ⁸	Mikulčice- Panské ⁹	Mikulčice- Trapíkov	Mikulčice- Virgásky ¹⁰
Individuals, total	179	90	7	131	6	29
Adults	90	45	5	76	6	-
Adults % (of all individuals)	50%	50%	71%	58%	100%	-
Children	79	22	2	39	-	-
Children % (of all individuals)	44%	24%	29%	30%	-	-
Juvenile	10	-	-	8	-	-
Juvenile % (of all individuals)	6%	-	-	6%	-	-
Indeterminable individuals	-	23	-	8	-	29
Indeterminable individuals % (of all individuals)	-	26%	-	6%	-	100%
Individuals with gombíky	-	2	1	12	-	-
% of individuals with gombíky (of all individuals)	-	2%	14%	9%	-	-
Adults with gombíky	-	-	1	-	-	-
Adults with gombíky % (of all adults)	-	-	20%	-	-	-
Adults with gombíky % (of all individuals with gombíky)	-	-	100%	-	-	-
<i>M</i>	-	-	-	-	-	-
<i>M</i> %	-	-	-	-	-	-
<i>F</i>	-	-	1	-	-	-
<i>F</i> %	-	-	100%	-	-	-
<i>Indeterminable</i>	-	-	-	-	-	-
<i>Indeterminable</i> %	-	-	-	-	-	-
Children with gombíky	-	2	-	11	-	-
Children with gombíky % (of all children)	-	9%	-	28%	-	-
Children with gombíky % (of all individuals with gombíky)	-	100%	-	92%	-	-
<i>M</i>	-	-	-	-	-	-
<i>M</i> %	-	-	-	-	-	-
<i>F</i>	-	-	-	3	-	-
<i>F</i> %	-	-	-	25%	-	-
<i>Indeterminable sex/gender</i>	-	2	-	8	-	-
<i>Indeterminable sex/gender</i> %	-	100%	-	67%	-	-
Juveniles with gombíky	-	-	-	1	-	-
Juveniles with gombíky % (of all graves of juvenile)	-	-	-	13%	-	-
Juveniles with gombíky % (of all individuals with gombíky)	-	-	-	8%	-	-
<i>M</i>	-	-	-	1	-	-
<i>M</i> %	-	-	-	8%	-	-
<i>F</i>	-	-	-	-	-	-
<i>F</i> %	-	-	-	-	-	-
<i>Indeterminable sex/gender</i>	-	-	-	-	-	-
<i>Indeterminable sex/gender</i> %	-	-	-	-	-	-
Indeterminable age with gombíky	-	-	-	-	-	-
M with gombíky, total	-	-	-	1	-	-
% M of all individuals with gombíky	-	-	-	8%	-	-
F with gombíky, total	-	-	1	3	-	-
% F of all individuals with gombíky	-	-	100%	25%	-	-
Indeterminable sex/gender with gombíky, total	-	2	-	8	-	-
% indeterminable sex/gender of all individuals with gombíky	-	100%	-	67%	-	-

TAB. NOTE 6 HANÁKOVÁ, ŠTĚLOUKAL 1966.

TAB. NOTE 7 I worked only with graves from the excavations of L. Kraskovská in 1961–1964 (83 graves in total, KRASKOVSKÁ 1965, 19–49). Seven graves from the excavations of V. Vrábliková were not published.

TAB. NOTE 8 Anthropological estimate in BAXA ET AL. 2010, 493–494.

TAB. NOTE 9 Manuscript saved in Research Base Mikulčice-Trapíkov.

TAB. NOTE 10 Demographic data are not available.

Individuals/burial grounds	Mutěnice- Hrubé Kapansko	Nový Podtvorov ¹¹	Prušánky- Podsedky I ¹²	Prušánky- Podsedky II ¹³	Skalica- Kopečnice ¹⁴	Hinterland, total
Individuals, total	13	4	325	298	109	1191
Adults	11	-	165	169	55	622
Adults % (of all individuals)	85%	-	51%	57%	51%	52%
Children	-	-	137	101	24	404
Children % (of all individuals)	-	-	42%	34%	22%	34%
Juvenile	1	-	6	10	1	36
Juvenile % (of all individuals)	8%	-	2%	3%	1%	3%
Indeterminable individuals	1	4	17	18	29	129
Indeterminable individuals % (of all individuals)	8%	100%	5%	6%	27%	11%
Individuals with gombíky	-	-	7	6	5	33
% of individuals with gombíky (of all individuals)	-	-	2%	2%	5%	3%
Adults with gombíky	-	-	-	1	1	3
Adults with gombíky % (of all adults)	-	-	-	0,60%	1%	0,50%
Adults with gombíky % (of all individuals with gombíky)	-	-	-	17%	20%	9%
M	-	-	-	-	-	-
M %	-	-	-	-	-	-
F	-	-	-	1	1	3
F %	-	-	-	17%	20%	9%
Indeterminable	-	-	-	-	-	-
Indeterminable %	-	-	-	-	-	-
Children with gombíky	-	-	7	5	3	28
Children with gombíky % (of all children)	-	-	5%	5%	13%	7%
Children with gombíky % (of all individuals with gombíky)	-	-	100%	83%	60%	88%
M	-	-	-	-	1	1
M %	-	-	-	-	20%	3%
F	-	-	6	1	1	11
F %	-	-	86%	17%	20%	34%
Indeterminable sex/gender	-	-	1	4	1	16
Indeterminable sex/gender %	-	-	14%	67%	20%	50%
Juveniles with gombíky	-	-	-	-	-	1
Juveniles with gombíky % (of all graves of juvenile)	-	-	-	-	-	6%
Juveniles with gombíky % (of all individuals with gombíky)	-	-	-	-	-	3%
M	-	-	-	-	-	1
M %	-	-	-	-	-	3%
F	-	-	-	-	-	-
F %	-	-	-	-	-	-
Indeterminable sex/gender	-	-	-	-	-	-
Indeterminable sex/gender %	-	-	-	-	-	-
Indeterminable age with gombíky	-	-	-	-	1	1
M with gombíky, total	-	-	-	-	1	2
% M of all individuals with gombíky	-	-	-	-	20%	6%
F with gombíky, total	-	-	6	2	2	14
% F of all individuals with gombíky	-	-	86%	33%	40%	42%
Indeterminable sex/gender with gombíky, total	-	-	1	4	2	17
% indeterminable sex/gender of all individuals with gombíky	-	-	14%	67%	40%	52%

TAB. NOTE 11 Demographic data are not available.

TAB. NOTE 12 KLANICA 2006A, 2006B.

TAB. NOTE 13 The graves from the Great Moravian period as well as the post-Great Moravian period were excavated at the burial ground. The dating of the individual graves is not specified in the publication (KLANICA 2006A, 2006B). I dated graves with coins or S-shaped temple rings to the post-Great Moravian period (together 66 graves) and I excluded them from the analyses. I analysed another 298 graves, as they may fall into Great Moravian period.

TAB. NOTE 14 The demographic estimate includes 76 individuals from the excavations of V. Budinský-Krička in the years 1943-1944 (BUDINSKÝ-KRIČKA 1959) and then 7 graves from the excavations of I. L. Červinka in the years 1922-1923. The other 26 graves were not processed and they are classified as indeterminable (KRASKOVSKÁ 1959, 163-185).

TAB. 26 | Technological characterisation of gombiky in connection with sex/gender and age-at-death - children from the acropolis. F - female, M - male, N - indefinable sex/gender.

Characteristics of gombiky/ individuals - children	Total	%	M	M%	F	F%	N	N%
Number of graves in analysis	56	100%	5	9%	13	23%	38	68%
Number of gombiky in analysis	101	100%	8	8%	30	30%	63	62%
Number of gombiky in one grave (approx.)	1.8	-	1.6	-	2.3	-	1.7	-
Number of paired gombiky	66	65% of all	6	75% of all M	18	60% of all F	42	67% of all N
Number of graves with one gombik	20	35% of all	2	40% of all M	3	23% of all F	15	39% of all N
Number of graves with two gombiky	31	55% of all	3	60% of all M	6	46% of all F	22	58% of all N
Number of graves with three gombiky	2	4% of all	-	-	2	15% of all F	-	-
Number of graves with four gombiky	2	4% of all	-	-	1	8% of all F	1	3% of all N
Number of graves with five gombiky	1	2% of all	-	-	1	8% of all F	-	-
Number of graves with six gombiky	-	-	-	-	-	-	-	-
Undecorated gombiky number, total	5	5% of all	-	-	-	-	5	8% of all N
Gombiky with chased decoration number, total	48	47% of all	6	75% of all M	16	53% of all F	26	41% of all N
<i>Chased - vertical ribbing</i>	4	8% of all chased	-	-	2	13% chased F	2	8% chased N
<i>Chased - plant ornament</i>	34	71% of all chased	6	100% chased M	8	50% chased F	20	78% chased N
<i>Chased - zoomorphic ornament</i>	2	4% of all chased	-	-	1	6% chased F	1	4% chased N
<i>Chased - anthropomorphic ornament</i>	2	4% of all chased	-	-	-	-	2	8% chased N
<i>Chased - geometric ornament</i>	6	13% of all chased	-	-	5	31% chased F	1	3% chased N
<i>Scheme: arcade</i>	12	25% of all chased	2	33% chased M	2	13% chased F	8	30% chased N
<i>Scheme: medallion</i>	4	8% of all chased	-	-	2	13% chased F	2	8% chased N
<i>Scheme: cordate meander</i>	12	25% of all chased	4	67% chased M	1	6% chased F	7	26% chased N
<i>Scheme: net</i>	2	4% of all chased	-	-	-	-	2	8% chased N
<i>Scheme: unclassified</i>	4	8% of all chased	-	-	1	6% chased F	3	12% chased N
<i>Scheme: divided into eight fields</i>	6	13% of all chased	-	-	5	31% chased F	1	4% chased N
<i>Scheme: not-described</i>	8	17% of all chased	-	-	5	31% chased F	3	12% chased N
Gombiky with soldered decoration number, total	33	33% of all	1	13% of all M	12	40% of all F	20	32% of all N
<i>Soldered - full-surface granulation</i>	7	21% of all soldered	-	-	1	8% soldered F	6	30% soldered N
<i>Soldered - sparse coarse granulation</i>	8	25% of all soldered	1	100% soldered M	2	17% soldered F	5	25% soldered N
<i>Soldered - 'poppyseed' granulation</i>	8	25% of all soldered	-	-	3	25% soldered F	5	25% soldered N
<i>Soldered - fliigree wires</i>	6	18% of all soldered	-	-	4	33% soldered F	2	10% soldered N
<i>Soldered - fliigree strips = two-layered</i>	2	6% of all soldered	-	-	2	17% soldered F	-	-
<i>Soldered - bosses</i>	2	6% of all soldered	-	-	-	-	2	10% soldered N
Glass	9	9% of all	-	-	2	7% of all F	7	11% of all N
Iron	1	1% of all	-	-	-	-	1	2% of all N
Lead	-	-	-	-	-	-	-	-
Not-described	5	5% of all	1	13% of all M	-	-	4	6% of all N
Material: gold	6	6% of all	-	-	2	7% of all F	4	6% of all N
Material: silver	31	31% of all	5	63% of all M	10	33% of all F	16	25% of all N
Material: gilded silver	5	5% of all	1	12% of all M	1	3% of all F	3	5% of all N
Material: gilded copper alloy	49	48% of all	2	25% of all M	15	50% of all F	32	51% of all N
Material: lead	-	-	-	-	-	-	-	-
Material: iron	1	1% of all	-	-	-	-	1	2% of all N
Material: glass	9	9% of all	-	-	2	7% of all F	7	11% of all N
Material: not-described	-	-	-	-	-	-	-	-
Quality: elite	7	7% of all	2	25% of all M	4	14% of all F	1	2% of all N
Quality: average	39	39% of all	4	50% of all M	6	20% of all F	29	46% of all N
Quality: below average /imitation	23	23% of all	-	-	10	33% of all F	13	20% of all N
Quality: not-described	32	32% of all	2	25% of all M	10	33% of all F	20	32% of all N
Size: small	36	36% of all	-	-	12	40% of all F	24	38% of all N
Size: medium	25	25% of all	2	25% of all M	8	27% of all F	15	24% of all N
Size: large	8	8% of all	4	50% of all M	1	3% of all F	3	5% of all N
Size: not-described	32	32% of all	2	25% of all M	9	30% of all F	21	33% of all N
Object inside	4	4% of all	2	25% of all M	-	-	2	3% of all N

TAB. 27 | Technological characterisation of gombiky in connection with sex/gender and age-at-death - children from the extra-mural settlement. F - female, M - male, N - indefinable sex/gender.

Characteristics of gombiky/ individuals - children	Total	%	M	M %	F	F %	N	N %
Number of graves in analysis	48	100%	3	6%	16	33%	29	61%
Number of gombiky in analysis	88	100%	5	6%	38	43%	45	51%
Number of gombiky in one grave (approx.)	1.8	-	1.7	-	2.4	-	1.6	-
Number of paired gombiky	60	57% of all	4	80% of all M	28	73% of all F	28	62% of all N
Number of graves with one gombik	23	48% of all	1	33% of all M	6	38% of all F	16	55% of all N
Number of graves with two gombiky	17	36% of all	2	67% of all M	4	25% of all F	11	38% of all N
Number of graves with three gombiky	3	6% of all	-	-	2	13% of all F	1	3% of all N
Number of graves with four gombiky	4	8% of all	-	-	3	19% of all F	1	3%
Number of graves with five gombiky	-	-	-	-	-	-	-	-
Number of graves with six gombiky	1	2% of all	-	-	1	6% of all F	-	-
Undecorated gombiky number, total	7	8% of all	-	-	4	11% of all F	3	7% of all N
Gombiky with chased decoration number, total	32	36% of all	4	80% of all M	11	29% of all F	17	38% of all N
<i>Chased - vertical ribbing</i>	4	13% of all chased	-	-	1	9% chased F	3	18% chased N
<i>Chased - plant ornament</i>	22	69% of all chased	4	100% chased M	7	64% chased F	11	65% chased N
<i>Chased - zoomorphic ornament</i>	4	13% of all chased	-	-	3	27% chased F	1	6% chased N
<i>Chased - anthropomorphic ornament</i>	-	-	-	-	-	-	-	-
<i>Chased - geometric ornament</i>	2	6% of all chased	-	-	-	-	2	12% chased N
<i>Scheme: arcade</i>	13	41% of all chased	4	100% chased M	2	18% chased F	7	41% chased N
<i>Scheme: medallion</i>	3	9% of all chased	-	-	3	27% chased F	-	-
<i>Scheme: cordate meander</i>	4	13% of all chased	-	-	2	18% chased F	2	12% chased N
<i>Scheme: net</i>	2	6% of all chased	-	-	2	18% chased F	-	-
<i>Scheme: unclassified</i>	4	13% of all chased	-	-	-	-	4	23% chased N
<i>Scheme: divided into eight fields</i>	-	-	-	-	-	-	-	-
<i>Scheme: not-described</i>	6	19% of all chased	-	-	2	18% chased F	4	23% chased N
Gombiky with soldered decoration number, total	22	25% of all	-	-	11	29% of all F	11	24% of all N
<i>Soldered - full-surface granulation</i>	9	41% of all soldered	-	-	7	64% soldered F	2	18% soldered N
<i>Soldered - sparse coarse granulation</i>	-	-	-	-	-	-	-	-
<i>Soldered - 'poppyseed' granulation</i>	7	32% of all soldered	-	-	1	9% soldered F	6	55% soldered N
<i>Soldered - filigree wires</i>	3	14% of all soldered	-	-	-	-	3	27% soldered N
<i>Soldered - filigree strips = two-layered</i>	-	-	-	-	-	-	-	-
<i>Soldered - bosses</i>	3	14% of all soldered	-	-	3	27% soldered F	-	-
Glass	19	22% of all	-	-	9	24% of all F	10	22% of all N
Iron	4	5% of all	1	20% of all M	-	-	3	7% of all N
Lead	1	1% of all	-	-	1	3% of all F	-	-
Not-described	3	3% of all	-	-	2	5% of all F	1	2% of all N
Material: gold	-	-	-	-	-	-	-	-
Material: silver	24	27% of all	2	40% of all M	15	39% of all F	7	15% of all N
Material: gilded silver	-	-	-	-	-	-	-	-
Material: gilded copper alloy	40	45% of all	2	40% of all M	13	34% of all F	25	56% of all N
Material: lead	1	1% of all	-	-	1	3% of all F	-	-
Material: iron	4	5% of all	1	20% of all M	-	-	3	7% of all N
Material: glass	19	22% of all	-	-	9	24% of all F	10	22% of all N
Material: not-described	-	-	-	-	-	-	-	-
Technique: elite	2	2% of all	-	-	2	5% of all F	-	-
Technique: average	31	35% of all	2	40% of all M	14	37% of all F	15	33% of all N
Technique: below average/imitation	11	13% of all	2	40% of all M	3	8% of all F	6	13% of all N
Technique: not-described	44	50% of all	1	20% of all M	19	50% of all F	24	53% of all N
Size: small	22	25% of all	-	-	13	34% of all F	9	20% of all N
Size: medium	22	25% of all	3	60% of all M	7	19% of all F	12	27% of all N
Size: large	2	2% of all	-	-	2	5% of all F	-	-
Size: not-described	42	48% of all	2	40% of all M	16	42% of all F	24	53% of all N
Object inside	1	1% of all	-	-	1	6% of all F	-	-

TAB. 32 | Technological characterisation of gombiky in connection with sex/gender and age-at-death - adults from the acropolis. F - female, M - male, N - indefinable sex/gender.

Characteristics of gombiky/ individuals - adults	Total	%	M	M %	F	F %	N	N %
Number of graves in analysis	41	100%	17	41%	22	54%	2	5%
Number of gombiky in analysis	76	100%	28	37%	43	57%	5	7%
Number of gombiky in one grave (approx.)	1.9	-	1.7	-	2	-	2.5	-
Number of paired gombiky	46	61% of all	16	57% of all M	30	70% of all F	-	-
Number of graves with one gombik	18	44% of all	9	53% of all M	8	36% of all F	1	50% of all N
Number of graves with two gombiky	16	39% of all	6	35% of all M	10	45% of all F	-	-
Number of graves with three gombiky	4	10% of all	1	6% of all M	3	14% of all F	-	-
Number of graves with four gombiky	2	5% of all	1	6% of all M	-	-	1	50% of all N
Number of graves with five gombiky	-	-	-	-	-	-	-	-
Number of graves with six gombiky	1	2% of all	-	-	1	5% of all F	-	-
Undecorated gombiky number, total	1	1% of all	-	-	1	2% of all F	-	-
Gombiky with chased decoration number, total	46	61% of all	23	82% of all M	18	42% of all F	5	100% of all N
<i>Chased - vertical ribbing</i>	2	4% of all chased	2	9% chased M	-	-	-	-
<i>Chased - plant ornament</i>	35	76% of all chased	16	70% chased M	15	83% chased F	4	80% chased N
<i>Chased - zoomorphic ornament</i>	5	11% of all chased	4	17% chased M	1	6% chased F	-	-
<i>Chased - anthropomorphic ornament</i>	-	-	-	-	-	-	-	-
<i>Chased - geometric ornament</i>	4	9% of all chased	1	4% chased M	2	11% chased F	1	20% chased N
<i>Scheme: arcade</i>	10	22% of all chased	5	22% chased M	5	28% chased F	-	-
<i>Scheme: medallion</i>	8	17% of all chased	5	22% chased M	3	17% chased F	-	-
<i>Scheme: cordate meander</i>	10	22% of all chased	2	9% chased M	6	33% chased F	2	40% chased N
<i>Scheme: net</i>	5	11% of all chased	3	13% chased M	-	-	2	40% chased N
<i>Scheme: unclassified</i>	5	11% of all chased	3	13% chased M	2	11% chased F	-	-
<i>Scheme: divided into eight fields</i>	-	-	-	-	-	-	-	-
<i>Scheme: not-described</i>	8	17% of all chased	5	22% chased M	2	11% chased F	1	20% chased N
Gombiky with soldered decoration number, total	20	26% of all	2	7% of all M	18	42% of all F	-	-
<i>Soldered - full-surface granulation</i>	6	30% of all soldered	-	-	6	33% soldered F	-	-
<i>Soldered - sparse coarse granulation</i>	1	5% of all soldered	1	75% soldered M	-	-	-	-
<i>Soldered - 'poppyseed' granulation</i>	4	20% of all soldered	-	-	4	22% soldered F	-	-
<i>Soldered - filigree wires</i>	-	-	-	-	-	-	-	-
<i>Soldered - filigree strips = two-layered</i>	2	10% of all soldered	-	-	2	11% soldered F	-	-
<i>Soldered - bosses</i>	7	35% of all soldered	1	25% soldered M	6	33% soldered F	-	-
Glass	-	-	-	-	-	-	-	-
Iron	1	1% of all	-	-	1	2% of all F	-	-
Lead	-	-	-	-	-	-	-	-
Not-described	8	11% of all	3	4% of all M	5	12% of all F	-	-
Material: gold	7	9% of all	5	21% of all M	2	5% of all F	-	-
Material: silver	36	46% of all	7	29% of all M	27	63% of all F	2	40% of all N
Material: gilded silver	2	3% of all	-	-	2	5% of all F	-	-
Material: gilded copper alloy	29	38% of all	16	50% of all M	10	23% of all F	3	60% of all N
Material: lead	-	-	-	-	-	-	-	-
Material: iron	1	2% of all	-	-	1	2% of all F	-	-
Material: glass	-	-	-	-	-	-	-	-
Material: not-described	1	2% of all	-	-	1	3% of all F	-	-
Quality: elite	13	17% of all	5	21% of all M	8	19% of all F	-	-
Quality: average	35	46% of all	13	54% of all M	17	40% of all F	5	100% of all N
Quality: below average/imitation	8	11% of all	3	-	5	12% of all F	-	-
Quality: not-described	20	26% of all	7	25% of all M	13	30% of all F	-	-
Size: small	25	33% of all	15	50% of all M	10	23% of all F	-	-
Size: medium	20	26% of all	5	21% of all M	12	28% of all F	3	60% of all N
Size: large	9	12% of all	-	-	7	16% of all F	2	40% of all N
Size: not-described	22	29% of all	8	29% of all M	14	33% of all F	-	-
Object inside	4	5% of all	1	4% of all M	3	7% of all F	-	-

TAB. 33 | Technological characterisation of gombíky in connection with sex/gender and age-at-death - adults from the extra-mural settlement. F - female, M - male, N - indefinable sex/gender.

Characteristics of gombíky/ individuals - adults	Total	%	M	M %	F	F %	N	N %
Number of graves in analysis	9	100%	3	33%	4	45%	2	22%
Number of gombíky in analysis	13	100%	3	23%	6	46%	4	31%
Number of gombíky in one grave (approx.)	1.4	-	1	-	1.5	-	2	-
Number of paired gombíky	6	46% of all	-	-	4	100% of all F	2	50% of all N
Number of graves with one gombík	6	67% of all	3	100% of all M	2	50% of all F	1	50% of all N
Number of graves with two gombíky	2	22% of all	-	-	2	50% of all F	-	-
Number of graves with three gombíky	1	11% of all	-	-	-	-	1	50% of all N
Number of graves with four gombíky	-	-	-	-	-	-	-	-
Number of graves with five gombíky	-	-	-	-	-	-	-	-
Number of graves with six gombíky	-	-	-	-	-	-	-	-
Undecorated gombíky number, total	-	-	-	-	-	-	-	-
Gombíky with chased decoration number, total	8	62% of all	1	33% of all M	5	83% of all F	2	50% of all N
Chased - vertical ribbing	1	13% of all chased	-	-	-	-	1	50% chased N
Chased - plant ornament	5	63% of all chased	1	100% chased M	3	60% chased F	1	50% chased N
Chased - zoomorphic ornament	-	-	-	-	-	-	-	-
Chased - anthropomorphic ornament	-	-	-	-	-	-	-	-
Chased - geometric ornament	2	25% of all chased	-	-	2	40% chased F	-	-
Scheme: arcade	1	13% of all chased	-	-	1	20% chased F	-	-
Scheme: medallion	2	25% of all chased	-	-	2	40% chased F	-	-
Scheme: cordate meander	-	-	-	-	-	-	-	-
Scheme: net	2	25% of all chased	1	100% chased M	-	-	1	50% chased N
Scheme: unclassified	-	-	-	-	-	-	-	-
Scheme: divided into eight fields	2	25% of all chased	-	-	2	40% chased F	-	-
Scheme: not-described	1	13% of all chased	-	-	-	-	1	50% chased N
Gombíky with soldered decoration number, total	2	15% of all	-	-	-	-	2	50% of all N
Soldered - full-surface granulation	2	100% soldered	-	-	-	-	2	100% soldered N
Soldered - sparse coarse granulation	-	-	-	-	-	-	-	-
Soldered - 'poppyseed' granulation	-	-	-	-	-	-	-	-
Soldered - filigree wires	-	-	-	-	-	-	-	-
Soldered - filigree strips = two-layered	-	-	-	-	-	-	-	-
Soldered - bosses	-	-	-	-	-	-	-	-
Glass	2	15% of all	1	33% of all M	1	17% of all F	-	-
Iron	-	-	-	-	-	-	-	-
Lead	-	-	-	-	-	-	-	-
Not-described	1	8% of all	1	33% of all M	-	-	-	-
Material: gold	-	-	-	-	-	-	-	-
Material: silver	1	8% of all	-	-	-	-	1	25% of all N
Material: gilded silver	1	8% of all	-	-	1	17% of all F	-	-
Material: gilded copper alloy	9	69% of all	2	67% of all M	4	66% of all F	3	75% of all N
Material: lead	-	-	-	-	-	-	-	-
Material: iron	-	-	-	-	-	-	-	-
Material: glass	2	15% of all	1	33% of all M	1	17% of all F	-	-
Material: not-described	-	-	-	-	-	-	-	-
Quality: elite	-	-	-	-	-	-	-	-
Quality: average	2	8% of all	-	-	1	17% of all F	1	25% of all N
Quality: below average /imitation	7	54% of all	-	-	4	66% of all F	3	75% of all N
Quality: not-described	4	38% of all	3	100% of all M	1	17% of all F	-	-
Size: small	7	54% of all	1	33% of all M	3	50% of all F	3	75% of all N
Size: medium	3	23% of all	-	-	2	33% of all F	1	25% of all N
Size: large	-	-	-	-	-	-	-	-
Size: not-described	3	23% of all	2	67% of all M	1	17% of all F	-	-
Object inside	-	-	-	-	-	-	-	-

TAB. NOTE. 15 From the Kostelisko site, there are two graves with different anthropological sex and archaeological gender identity: in female grave 1665a, a sword and a pair of spurs were found near the skeleton, and in female grave 1766, spurs with accompanying forgings were found. In both cases, however, these are probably multiple graves. For the purposes of this analysis, I have placed them in the category of indeterminate adults due to unclear find circumstances.

TAB. 37 | Chronological framework of occurrence of various types of spherical clothing accessories with an attachment loop in Eurasian territory. (Table and notes continue on next page.)

Type of button or gombík/ localisation	Moravia	Bohemia	SW Slovakia	Pannonia
Sheet metal undecorated	First half of 9th century? - beginning of 10th century?	Second half of 9th century-10th century	Second half of 9th century-10th century	First half of 9th century-11th century
Sheet metal decorated - soldered decoration	First half of 9th century - beginning of 10th century	Second half of 9th century-10th century	Second half of 9th century-10th century	9th-10th century (9th-century agglomeration Zalavár, 10th-century ancient Hungarian graves) ²⁰
Sheet metal decorated - chased decoration	First half of 9th century - beginning of 10th century	Second half of 9th century-10th century	Second half of 9th century - 10th century (9th century - Great Moravian sites; 10th century - in graves of ancient Hungarian/Biello-Brdo culture: Galanta-Papföld, Bratislava - Rusovce, Mudrunovo, Nitra - Amfiteáter)	9th-10th century (9th-century agglomeration Zalavár, 10th-century ancient Hungarian graves: Heves, unknown site in county Hajdú-Bihar)
Cast full (mushroom-shaped)	-	-	10th-11th century	10th-11th century
Cast hollow from two parts - divided horizontally	-	-	10th-11th century	10th-11th century
Cast hollow from two parts - divided vertically	-	-	10th-11th century	10th-11th century
Glass	First half of 9th century - beginning of 10th century	Exceptionally: second half of 9th - beginning of 10th century	First half of 9th century - beginning of 10th century	Exceptionally: 9th century - first half of 10th century
Textile and other organic material	-	-	-	-
Sheet metal roof-like (mit abgerundet pyramidenförmigen Blechen ⁴⁴)	Exceptionally: Staré Město - Na Valách (grave 286/49) ⁴⁵			

TAB. NOTE 16 OŤA 2008, 122; 2014, 142, PL. 19.

TAB. NOTE 17 VAŽAROVA 1976, OBR. 122, 127, 129, 142, 149, 164, 165; 1980, 305, RYC. 1, 2, 6.

TAB. NOTE 18 Several necropolises were excavated at the Sudak site (Byzantine Sugdeja) with numerous occurrences of undecorated 'gombiky', both cast from one piece and soldered (also chased?); they are interpreted as пуговицы-подвески (pugovitsy-podveski). They often appear as multiple artefacts in the context of a necklace, but also in two artefacts on the chest; the dating is not entirely clear - at least some graves from the 9th and 10th centuries (e.g. graves 28, 62, 146, 150, 216, 253); Majko 2007.

TAB. NOTE 19 The type of the specimen is not entirely evident - it may also be a full cast or cast in two parts; IERUSALIMSKAJA 2012, 74.

TAB. NOTE 20 E.g. sites: Geszteréd, Ibrány, Sárrétudvari-Hízóföld, Tokaj; MESTERHÁZY 2000, 211-212.

TAB. NOTE 21 Rare exclusive finds: Brestovac (final third of 8th century - beginning of 9th century); BÜHLER 2014, 24, 25, 191-192; Trilj (final third of the 8th century); PETRINEC 2009, 160-162; on the dating also UNGERMAN 2005, 715; in the 9th-10th century elongated decorated pendants appear; PETRINEC 2009, 294-296, TAB. 320; in general, JELOVINA 1976, 113-114.

TAB. NOTE 22 Cluj - MESTERHÁZY 2000, 211; enamel decoration on specimen from ALBA IULIA - CIUGUDEAN 2006, 28-29.

TAB. NOTE 23 VAŽAROVA 1976, OBR. 122, 127, 129, 142, 149, 164, 165; 1980, 305, RYC. 1, 2, 6; TOTEV 1993, especially 58-75; BOSSELMANN-RUICKBIE 2011, 18-40, especially 24-25.

TAB. NOTE 24 Decorative pendants (pendilia) with granulation and filigree, elongated form; Bosselmann-Ruickbie in press.

TAB. NOTE 25 See Tab. note 18.

TAB. NOTE 26 KOPIEVKA - LINKA-GEPPENER 1948, 184, TAB. II.

TAB. NOTE 27 In the context of an ancient Hungarian burial; MESTERHÁZY 2000, 214.

TAB. NOTE 28 9th century; STROH 1954, 30, TAF. I: 1, 2.

TAB. NOTE 29 KOROŠEC 1950, 95-97.

TAB. NOTE 30 VAŽAROVA 1976, 208, 209.

TAB. NOTE 31 Without specification of site - vertically ribbed specimen; ANTONARAS 2012, 121, FIG. 3.

TAB. NOTE 32 Birka, 9th-10th century; ARBMAN 1940, TAF. 93; GEJER 1938, 143, 150, TAF. 33.

TAB. NOTE 33 Gnězdovo, 9th-12th century, found *in situ* including fastened fabric; for men, regularly 4-5 artefacts in grave; GNĚZDOVO - KAINOV RED. 2018, E.G. 216; 386; 433-434; 438-439.

TAB. NOTE 34 Sudak (Krym), quadratic attachment loop and discoid form; see Tab. note 18.

TAB. NOTE 36 A different type than found in Europe; IERUSALIMSKAJA 2012, 144.

TAB. NOTE 37 The specimen type is not entirely evident - it could be solid cast or undecorated sheet metal; IERUSALIMSKAJA 2012, 74.

Type of button or gombík/ localisation	Europe	Asia
Sheet metal undecorated	6th century – ≥ 11th century (Romania, ¹⁶ Bulgaria, ¹⁷ Crimea ¹⁸)	8th–9th century (Caucasus) ¹⁹
Sheet metal decorated – soldered decoration	Second half of 8th–11th century (Croatia, ²¹ rarely Romania, ²² Bulgaria, ²³ Greece, ²⁴ Ukraine, Crimea, ²⁵ Russia ²⁶)	-
Sheet metal decorated – chased decoration	Exceptionally 9th–10th century: Subotica (UKR); ²⁷ Senčanski Tresnjevac (SRB); Matzhausen (D); ²⁸ Ptuj (SVN); ²⁹ Dolni Lukovit (BGR); ³⁰ Greece ³¹	-
Cast full (mushroom-shaped)	9th–12th century (Sweden; ³² Russia; ³³ Ukraine ³⁴)	8th–9th century (Caucasus) ³⁶
Cast hollow from two parts – divided horizontally	10th–11th century (Romania, Hungary)	8th–9th century (Caucasus) ³⁷
Cast hollow from two parts – divided vertically	Exceptionally: 10th–11th century (Romania ³⁸)	-
Glass	Bound pendants: middle of 5th – end of 7th century (France, Great Britain ³⁹)	-
Textile and other organic material	Exceptionally: 9th–10th century, Birka (SWE): knots made of textile porta ⁴⁰	4th–6th century, Egypt: textile button with organic core; ⁴¹ 8th–9th century, Caucasus: textile knots, buttons covered with cloth, bone buttons ⁴²
Sheet metal roof-like (mit abgerundet pyramidenförmigen Blechen ¹⁹⁴)	Exceptionally: Obîrșia Nouă, Sultana (ROU) ⁴³	-

TAB. NOTE 38 OŢA 2008, 122; 2014, 142, PL. 19.

TAB. NOTE 39 KORNBLUTH 2015, 54.

TAB. NOTE 40 GELJER 1938, TAF. 28.

TAB. NOTE 41 ABEN 1979, 12–13.

TAB. NOTE 42 IERUSALIMSKAJA 1978, 203; 2012, 75.

TAB. NOTE 43 FIEDLER 1992, 193.

TAB. NOTE 44 HRUBÝ 1955, 456–457, TAB. 67: 3, 4.

TAB. NOTE 45 FIEDLER 1992, 193.

TAB. 38 | Occurrence of gombíky in the Mikulčice-Kopčany agglomeration and its hinterland.
(Table continues on next page.)

Localisation ⁴⁶	Part of agglomeration/hinterland Mikulčice-Kopčany	Number of graves	Number of gombíky	Number of graves with gombíky	% of graves with gombíky	Number of sheet metal decorated gombíky	% of sheet metal decorated gombíky	Number of gombíky with chased decoration	% of gombíky with chased decoration	Gombíky with soldered rings	% of gombíky with soldered rings
Church 2	Acropolis	236	68	36	15%	56	82%	33	49%	-	-
Church 3 + 'Palace'	Acropolis	594	123	63	11%	110	89%	69	56%	2 ⁴⁸	2%
Church 4	Acropolis	106	3	3	3%	3	100%	3	100%	-	-
Church 11	Acropolis	81	12	9	11%	8	67%	5	42%	-	-
Church 12	Acropolis	88	8	5	6%	4	50%	3	38%	-	-
Church 6	Extra-mural settlement	210	30	16	8%	29	97%	19	63%	-	-
Church 7	Extra-mural settlement	16	3	2	13%	2	67%	2	67%	-	-
Church 8	Extra-mural settlement	25	4	1	4%	1	25%	-	-	-	-
Church 9	Extra-mural settlement	49	10	6	12%	3	30%	1	10%	-	-
Church 10	Extra-mural settlement	11	-	-	-	-	-	-	-	-	-
Kostelisko	Extra-mural settlement	455	50	29	6%	27	54%	17	34%	1	2%
Klášteřísko	Extra-mural settlement	324	15	9	3%	8	53%	4	27%	4	27%
Žabník	Extra-mural settlement	76	-	-	-	-	-	-	-	-	-
Josefov-Záhumenica	Hinterland	179	-	-	-	-	-	-	-	-	-
Kopčany-Kačenáreň (3 sites)	Hinterland	90	2	2	2%	21	100%	1	50%	1	50%
Kopčany-Church of Saint Margaret	Hinterland	7	2	1	14%	2	100%	2	100%	-	-
Mikulčice-Panské	Hinterland	131	27	12	9%	13	48%	8	30%	3 ⁵⁰	11%
Mikulčice-Trapíkov	Hinterland	6	-	-	-	-	-	-	-	-	-
Mikulčice-Virgásky	Hinterland	29	-	-	-	-	-	-	-	-	-
Mutěnice-Hrubé Kapansko	Hinterland	13	-	-	-	-	-	-	-	-	-
Nový Poddvorov	Hinterland	4	-	-	-	-	-	-	-	-	-
Prušánky-Podsedky I	Hinterland	325	13	7	2%	4	31%	2	15%	2	15%
Prušánky-Podsedky II	Hinterland	298	7	6	2%	4	50%	-	-	2	25%
Skalica-Kopečnica	Hinterland (mound cemetery)	109	11	5	5%	10	91%	8	73%	2	17%
Mikulčice, total	-	3462	389	212	6%	286	74%	175	45%	16	4%
Acropolis, total	-	1105	214	114	11%	181	85%	113	53%	2	1%
Extra-mural settlement, total	-	1166	112	63	5%	70	61%	43	38%	5	5%
Hinterland, total	-	1191	63	33	3%	35	56%	19	30%	9	15%

TAB. NOTE 46 Data from unpublished inventory books from 1954–2016 and descriptions of own findings were used for the research; data from the following publications were used for the acropolis and the extra-mural settlement: POLÁČEK, MAREK 2005; POULÍK 1957, 241–388; POULÍK 1963; KLANICA ET AL. 2019; PROFANTOVÁ, KAVÁNOVÁ 2003; KLANICA 1985; KOUŘIL 2010; MĚŘÍNSKÝ 2005; for the hinterland: HANÁKOVÁ, STLOUKAL 1966; BAXA 2010; KLANICA 2006A, 2006B; BUDINSKÝ-KRIČKA 1959; anthropological data of buried individuals from acropolis and extra-mural settlement are based on a revisited anthropological analysis by J. Brůžek and P. Velemínský et al., partly published in ZAZVONILOVÁ ET AL. 2020; for sources of anthropological data of individuals from hinterland see Tab. 25.

TAB. NOTE 47 In the case of the 2nd church, this is the occurrence of four small gold undecorated gombíky in two graves. Since they are made of gold, I count them in the total sum (Tab. 45) among elite buttons.

TAB. NOTE 48 These two gombíky with rings were made of gold and I therefore count them in the total sum (Tab. 45) among elite buttons.

TAB. NOTE 49 One of the undecorated gombíky from church 3 was made of silver and I therefore count it in the total sum (Tab. 45) among elite gombíky.

TAB. NOTE 50 Two of the gombíky with filigree rings were made of silver and I therefore count them among elite gombíky (see Tab. 45).

Localisation ⁴⁶	Part of agglomeration/hinterland Mikulčice-Kopčany	Sheet metal undecorated gombíky	% of sheet metal undecorated gombíky	Glass gombíky	% of glass gombíky	Cast or iron gombíky	% of cast or iron gombíky	Unspecified	% of unspecified	Gold/silver gombíky
Church 2	Acropolis	4 ⁴⁷	6%	-	-	1 (iron)	1%	7	10%	4/32
Church 3 + 'Palace'	Acropolis	2 ⁴⁹	2%	4	3%	-	-	7	6%	14/55
Church 4	Acropolis	-	-	-	-	-	-	-	-	-/2
Church 11	Acropolis	-	-	2	17%	1 (iron)	8%	1	8%	-/1
Church 12	Acropolis	-	-	3	38%	-	-	1	12%	-/1
Church 6	Extra-mural settlement	-	-	1	3%	-	-	-	-	-/10
Church 7	Extra-mural settlement	-	-	-	-	-	-	1	33%	-/3
Church 8	Extra-mural settlement	2	50%	-	-	1	25%	-	-	-/
Church 9	Extra-mural settlement	-	-	6	60%	-	-	1	10%	-/3
Church 10	Extra-mural settlement	-	-	-	-	-	-	-	-	-/
Kostelisko	Extra-mural settlement	5	10%	9	18%	3 (iron)	6%	6	12%	-/13
Klášteřisko	Extra-mural settlement	-	-	5	33%	1 (iron)	7%	1	7%	-/2
Žabník	Extra-mural settlement	-	-	-	-	-	-	-	-	-/
Josefov-Záhumenica	Hinterland	-	-	-	-	-	-	-	-	-/
Kopčany-Kačenáreň (3 sites)	Hinterland	-	-	-	-	-	-	-	-	-/1
Kopčany-Church of Saint Margaret	Hinterland	-	-	-	-	-	-	-	-	-/
Mikulčice-Panské	Hinterland	6	22%	7	26%	1 (iron)	4%	-	-	-/2
Mikulčice-Trapíkov	Hinterland	-	-	-	-	-	-	-	-	-/
Mikulčice-Virgásky	Hinterland	-	-	-	-	-	-	-	-	-/
Mutěnice-Hrubé Kapansko	Hinterland	-	-	-	-	-	-	-	-	-/
Nový Poddvorov	Hinterland	-	-	-	-	-	-	-	-	-/
Prušánky-Podsedky I	Hinterland	3	23%	5	39%	1	8%	-	-	-/
Prušánky-Podsedky II	Hinterland	-	-	4	50%	-	-	-	-	-/1
Skalice-Kopečnica	Hinterland (mound cemetery)	1	9%	-	-	-	-	-	-	-/
Mikulčice, total	-	23	6%	46	12%	9	2%	25	6%	18/126
Acropolis, total	-	6	3%	9	4%	2	1%	16	7%	18/91
Extra-mural settlement, total	-	7	6%	21	19%	5	1%	9	8%	-/31
Hinterland, total	-	10	16%	16	25%	2	3%	-	-	-/4

TAB. 39 | Occurrence of gombiky at Staré Město - Uherské Hradiště agglomeration.
(Table and notes continue on next page.)

Localisation ⁵¹	Number of graves	Number of gombiky	Number of graves with gombiky	% of graves with gombiky	Number of sheet metal decorated gombiky	% of sheet metal decorated gombiky	Chased gombiky	% of chased gombiky	Gombiky with soldered rings	% of gombiky with soldered rings
Uherské Hradiště, Sady, Výšina sv. Metoděje	87	26	13	15%	20	77%	11	42%	-	-
Uherské Hradiště, Sady, Horní Kotvice	242	7	5	2%	1	14%	-	-	-	-
Staré Město, Na Valách (phase 1-1479; 1480-1660)	1660	179	96	6%	117	65%	80	45%	13	7%
Staré Město, Špitálky, cemetery near the church	46	17	10	22%	15	88%	9	53%	-	-
Staré Město, Špitálky, except the church burial ground (summary of positions Na Špitálkách, Čertův kout, Niva, Písečnice, Čtvrť)	158	1	1	< 1%	-	-	-	-	-	-
Staré Město, Na Dědině (Church of Saint Michael)	13	-	-	-	-	-	-	-	-	-
Staré Město, Na kostelíku	6	-	-	-	-	-	-	-	-	-
Staré Město, Nad haltýří	19	-	-	-	-	-	-	-	-	-
Staré Město, Na zahrádkách	12	-	-	-	-	-	-	-	-	-
Uherské Hradiště, Ostrov sv. Jiří	7	2	1	14%	2	100%	-	-	-	-
Staré Město, Rybárny	10	-	-	-	-	-	-	-	-	-
Modrá	45	4	2	4%	2	50%	-	-	-	-
Total	2305	236	128	6%	157	67%	100	42%	13	7%

TAB. NOTE 51 Data from the following publications were used for the research: GALUŠKA 1996; 2002, 51–69; GALUŠKA ET AL. 2018; MAREŠOVÁ 1983; HRUBÝ 1955; POULÍK 1955, 307–351; HRUBÝ, HOCHMANOVÁ, PAVELČÍK 1955; HOCHMANOVÁ 1962, 201–256; HRUBÝ 1965; MENOŠKOVÁ 2020.

TAB. NOTE 52 One undecorated gombik was made of gold, which is why I count it among elite pieces in the resulting table (see Tab. 45).

TAB. NOTE 53 Six undecorated specimens were made of gold, two of silver. For this reason, I count them among elite pieces in the resulting table (see Tab. 45).

Localisation ⁵¹	Sheet metal undecorated gombíky	% of sheet metal undecorated gombíky	Glass gombíky	% of glass gombíky	Cast or iron gombíky	% of cast or iron gombíky	Unspecified	% of unspecified	Gold / silver gombíky
Uherské Hradiště, Sady, Výšina sv. Metoděje	1 ⁵²	4%	5	19%	-	-	-	-	6/9
Uherské Hradiště, Sady, Horní Kotvice	-	-	6	86%	-	-	-	-	-/1
Staré Město, Na Valách (phase 1-1479; 1480-1660)	16 ⁵³	9%	19	11%	2 (lead)	1%	10	6%	16/71
Staré Město, Špitálky, cemetery near church	-	-	1	6%	-	-	1	6%	3/10
Staré Město, Špitálky, except the church burial ground (summary of positions Na Špitálkách, Čertův kout, Niva, Pisečnice, Čtvrťe)	-	-	-	-	-	-	1	100%	-/-
Staré Město, Na Dědině (Church of Saint Michael)	-	-	-	-	-	-	-	-	-/-
Staré Město, Na kostelíku	-	-	-	-	-	-	-	-	-/-
Staré Město, Nad haltýři	-	-	-	-	-	-	-	-	-/-
Staré Město, Na zahrádkách	-	-	-	-	-	-	-	-	-/-
Uherské Hradiště, Ostrov sv. Jiří	-	-	-	-	-	-	-	-	-/-
Staré Město, Rybárny	-	-	-	-	-	-	-	-	-/-
Modrá	-	-	2	50%	-	-	-	-	-/2
Total	17	7%	33	14%	2	1%	12	5%	25/93

TAB. 40 | Occurrence of gombíky at Břeclav-Pohansko agglomeration. (Table and notes continue on next page.)

Localisation ⁵⁴	Part of agglomeration Břeclav-Pohansko	Number of graves	Number of gombíky	Number of graves with gombíky	% of graves with gombíky	Number of sheet metal decorated gombíky	% of sheet metal decorated gombíky	Chased gombíky	% of chased gombíky	Gombíky with soldered rings	% of gombíky with soldered rings
Magnate court: first church	Fortified central part	407	67	32	8%	58	87%	41	61%	-	-
Magnate court: cemetery II + isolated graves	Fortified central part	16	6	3	19%	5	83%	2	33%	-	-
Cremation cemetery	Fortified central part	32	1	1	3%	-	-	-	-	-	-
Lesní školka	Fortified central part	80	-	-	-	-	-	-	-	-	-
East gate	Fortified central part	16	-	-	-	-	-	-	-	-	-
Lesní hrúd	Fortified central part	33	-	-	-	-	-	-	-	-	-
Wall	Suburb	38	-	-	-	-	-	-	-	-	-
North-eastern suburb: scattered graves	Suburb	63	3	1	2%	-	-	-	-	-	-
North-eastern suburb: second church	Suburb	152	11	6	4%	4	36%	4	36%	-	-
South suburb	Suburb	205	3	3	2%	-	-	-	-	-	-
Kostice, Zadní hrúd	Hinterland	2	-	-	-	-	-	-	-	-	-
Poštorná, Konopliska	Hinterland	6	-	-	-	-	-	-	-	-	-
Lanžhot, Padělky	Hinterland	9	-	-	-	-	-	-	-	-	-
Bernhardstahl	Hinterland	21	-	-	-	-	-	-	-	-	-
Stará Břeclav, Přední čtvrtky	Hinterland	8	1?	1?	-	-	-	-	-	-	-
Bernhardstahl, Drei Berge	Hinterland	7	-	-	-	-	-	-	-	-	-
Rabensburg - Tiergarten	Hinterland	28	-	-	-	-	-	-	-	-	-
Hrušky/Moravský Žižkov, Břeclavské jochy	Hinterland	11	-	-	-	-	-	-	-	-	-
Isolated finds in hinterland	-	-	-	-	-	-	-	-	-	-	-
Břeclav-Pohansko, total	-	1134	91	46	4%	67	74%	47	52%	-	-
Fortified central part, total	-	584	74	36	6%	63	85%	43	58%	-	-
Suburb, total	-	458	17	10	2%	4	24%	4	24%	-	-
Hinterland, total	-	92	-	-	-	-	-	-	-	-	-

TAB. NOTE 54 Data from these publications were used for the research: KALOUSEK 1971; MACHÁČEK ET AL. 2016; PŘICHYŠTALOVÁ ET AL. 2019; DRESLER 2016.

Localisation ⁵⁴	Part of Břeclav-Pohansko agglomeration / hinterland	Sheet metal undecorated gombíky	% of sheet metal undecorated gombíky	Glass gombíky	% of glass gombíky	Cast or iron gombíky	% of cast or iron gombíky	Unspecified	% of unspecified	Gold/silver gombíky
Magnate court: first church	Fortified central part	3	5%	5	8%	1 (lead)	2%	-	-	2/27
Magnate court: cemetery II + isolated graves	Fortified central part	-	-	1	17%	-	-	-	-	2/1
Cremation cemetery	Fortified central part	-	-	1	100%	-	-	-	-	-/-
Lesní školka	Fortified central part	-	-	-	-	-	-	-	-	-/-
East gate	Fortified central part	-	-	-	-	-	-	-	-	-/-
Lesní hrúd	Fortified central part	-	-	-	-	-	-	-	-	-/-
Wall	Suburb	-	-	-	-	-	-	-	-	-/-
North-eastern suburb: scattered graves	Suburb	1	33%	-	-	2 (lead)	67%	-	-	-/-
North-eastern suburb: second church	Suburb	2	18%	4	36%	1 (lead)	10%	-	-	-/-
South suburb	Suburb	-	-	3	100%	-	-	-	-	-/-
Kostice, Zadní hrúd	Hinterland	-	-	-	-	-	-	-	-	-/-
Poštorná, Konopliska	Hinterland	-	-	-	-	-	-	-	-	-/-
Lanžhot, Padělky	Hinterland	-	-	-	-	-	-	-	-	-/-
Bernhardstahl	Hinterland	-	-	-	-	-	-	-	-	-/-
Stará Břeclav, Přední čtvrtky	Hinterland	-	-	1	100%	-	-	-	-	-/-
Bernhardstahl, Drei Berge	Hinterland	-	-	-	-	-	-	-	-	-/-
Rabensburg, Tiergarten	Hinterland	-	-	-	-	-	-	-	-	-/-
Hrušky/Moravský Žižkov, Břeclavské jochy	Hinterland	-	-	-	-	-	-	-	-	-/-
Isolated finds in hinterland	-	-	-	-	-	-	-	-	-	-/-
Břeclav-Pohansko, total	-	6	7%	15	16%	4 (lead)	4%			4/28
Fortified central part, total	-	3	4%	7	5%	1	1%			4/28
Suburb, total	-	3	18%	7	41%	3	18%			-/-
Hinterland, total	-	-	-	14	16%	-	-			-/-

TAB. 41 | Occurrence of gombíky outside the central agglomerations - selection. Sites with more than 50 graves are highlighted. (Table and notes continue on next page.)

Site	Type of site	Number of graves	Number of gombíky	Number of graves with gombíky	% of graves with gombíky	Number of graves with elite types of gombíky	% of graves with elite types of gombíky	Number of sheet metal decorated gombíky	% of sheet metal decorated gombíky	Chased gombíky	% of chased gombíky
Dolní Věstonice, Na Pískách (RS) ⁵⁵	Local centre	1308	118	61	2	9%	< 1%	3	3%	2	2%
Boleradice, Randle ⁵⁶	Countryside	59	3	1	1	2%	2%	2	67%	2	67%
Velké Bílovice, Úlehly ⁵⁷	Countryside	71	-	-	-	-	-	-	-	-	-
Mutěnice, Hrubé Kapansko I ⁵⁸	Countryside	11	-	-	-	-	-	-	-	-	-
Rajhrad ⁵⁹	Local centre	619	15	7	2	1%	< 1%	7	47%	6	40%
Rajhradice ⁶⁰	Local centre	239	20	10	10	4%	4%	20	100%	17	85%
Rebešovice, terrace on left bank of Svatka ⁶¹	Local centre	147	10	5?	5?	3%	3%	≥ 6	≥ 60%	≥ 4	≥ 40%
Jiřkovice ⁶²	Countryside	≥ 10 (?)	1	1	1	-	-	1	100%	1	100%
Brno, Líšeň, Staré Zámky ⁶³	Local centre?	47									
Kuřim, Díly u sv. Jána, Za Špihlíkem ⁶⁴	Countryside	11	-	-	-	-	-	-	-	-	-
Olomouc, centre (Theresian Armoury, Wurmova 3, 'coachhouse' Horní náměstí, Ostružnická, Pekařská) ⁶⁵	Local centre	≥ 30	≥ 3	2	1	7%	3%	3	100%	2	67%
Olomouc, Nemilany ⁶⁶	Local centre	56	-	-	-	-	-	-	-	-	-
Olomouc, Holice ⁶⁷	Local centre?	21	2	1	-	5%	-	-	-	-	-
Olomouc, Slavonín, Horní lán ⁶⁸	Local centre?	100	≥ 2	≥ 1	≥ 1	-	-	≥ 2	-	≥ 2	-
Pěnčín, house of Fr. Příkryl ⁶⁹	Countryside	6	3	1	-	17%	-	-	-	-	-
Přerov, Předmostí, Nivky ⁷⁰	Local centre?	58	-	-	-	-	-	-	-	-	-
Morkovice-Slížany, cihelna ⁷¹	Countryside (with cremations)	≥ 8 (2 cremations)	2	1	1	13%	13%	2	100%	2	100%
Brankovice ⁷²	Countryside (mound cemetery)	3	2	1	-	33%	-	-	-	-	-
Žlutava, vrch Tresný ⁷³	Countryside? (mound cemetery)	19	1	1	-	5%	-	-	-	-	-
Stěbořice ⁷⁴	Periphery (mound cemetery)	45	-	-	-	-	-	-	-	-	-
Outside central agglomerations, total	19	2821	182	93	≥ 24	3%	26%	≥ 46	25%	≥ 38	21%
Local centre, total	9	2578	170	87	≥ 21	3%	24%	41	24%	33	19%
Countryside, total	10	243	12	6	3	2%	50%	5	42%	5	42%

Localisation	Type of site	Gombíky with soldered rings	% of gombíky with soldered rings	Sheet metal undecorated gombíky	% of sheet metal undecorated gombíky	Glass gombíky	% of glass gombíky	Cast or iron gombíky	% of cast or iron gombíky	Gold/silver gombíky
Dolní Věstonice, Na Pískách ⁵⁵	Local centre	21	18%	4	4%	83	70%	5 (lead)	4%	-/3
Boleradice, Randle ⁵⁶	Countryside	1	33%	-	-	-	-	-	-	-/-
Velké Bílovice, Úlehly ⁵⁷	Countryside	-	-	-	-	-	-	-	-	-/-
Mutěnice, Hrubé Kapansko I ⁵⁸	Countryside	-	-	-	-	-	-	-	-	-/-
Rajhrad ⁵⁹	Local centre	3	20%	-	-	4	27%	1 (copper alloy - mushroom-shaped)	6%	-/4
Rajhradice ⁶⁰	Local centre	-	-	-	-	-	-	-	-	-/14
Rebešovice, terrace on left bank of Svratka ⁶¹	Local centre	-	-	-	-	-	-	-	-	-/6
Jiřkovice ⁶²	Countryside	-	-	-	-	-	-	-	-	-/-
Brno, Líšeň, Staré Zámky ⁶³	Local centre?	-	-	-	-	-	-	-	-	-/-
Kuřim, Díly u sv. Jána, Za Špihlíkem ⁶⁴	Countryside	-	-	-	-	-	-	-	-	-/-
Olomouc, centre (Theresian Armoury, Wurmova 3, 'coachhouse', Horní náměstí, Ostružnická, Pekařská) ⁶⁵	Local centre	1	33%	-	-	-	-	-	-	-/2
Olomouc, Nemilany ⁶⁶	Local centre	-	-	-	-	-	-	-	-	-/-
Olomouc, Holice ⁶⁷	Local centre?	2	100%	-	-	-	-	-	-	-/-
Olomouc, Slavonín, Horní lán ⁶⁸	Local centre?	-	-	-	-	-	-	-	-	-/-
Pěňčín, house of Fr. Přikryl ⁶⁹	Countryside	-	-	2	67%	1	33%	-	-	-/-
Prerov, Předmostí, Nivky ⁷⁰	Local centre?	-	-	-	-	-	-	-	-	-/-
Morkovice-Slížany, cihelna ⁷¹	Countryside (with cremations)	-	-	-	-	-	-	-	-	-/-
Brankovice ⁷²	Countryside (mound cemetery)	-	-	-	-	2	100%	-	-	-/-
Žlutava, vrch Tresný ⁷³	Countryside? (mound cemetery)	-	-	-	-	1	100%	-	-	-/-
Stěbořice ⁷⁴	Periphery (mound cemetery)	-	-	-	-	-	-	-	-	-/-
Outside central agglomerations, total	19	28	15%	6	3%	91	50%	6	3%	-/28
Local centre, total	9	27	16%	4	2%	87	51%	6	4%	-/28
Countryside, total	10	1	8%	2	17%	4	33%	-	-	-/-

- TAB. NOTE 55 UNGERMAN 2023 A, B.
- TAB. NOTE 56 Child grave 48 contained a pair of gilded copper alloy gombíky with chased geometric decoration and another copper alloy gombík (?) with soldered rings (POULÍK 1948, 157).
- TAB. NOTE 57 MĚŘÍNSKÝ 1985.
- TAB. NOTE 58 KAVÁNOVÁ 1982, 504–520.
- TAB. NOTE 59 STAŇA 2006; HENDRYCHOVÁ 2014; 2016.
- TAB. NOTE 60 STAŇA 2006; HENDRYCHOVÁ 2014; 2016.
- TAB. NOTE 61 Three pairs of silver gombíky and two pairs of gilded copper alloy gombíky come from the burial site; two silver pairs were most likely with chased plant decoration, at least one pair of gilded copper alloy belonged to polyhedral buttons with coarse sparse granulation and glass inlays (lantern-type) (NEKVASIL 1954, 433–437, OBR. 188–189).
- TAB. NOTE 62 One specimen of a vertically ribbed copper alloy gombík with an engraved 'star' on the lower pole resembles a Czech find from Kanín (MAŘÍK 2009, 72–99, TAB. 47). Post-Great Moravian graves predominated in the cemetery – the total number of excavated graves is 110 (DOSTÁL 1966, 132–133).
- TAB. NOTE 63 ŠTROF, RŮŽIČKA 1997, 389–393.
- TAB. NOTE 64 Great Moravian burials come from disturbed cemeteries; Theresian Armoury: exclusively children's graves, in grave 21/96 a deformed copper alloy gombík with soldered rings (rings supposedly silver? - rarity); Wurmova 3: two extraordinarily equipped female burials, in grave 48/99 two silver buttons (BLÁHA 2001, 51–52, 60). Dómské návrší also offers the potential for other finds of graves equipped with gombíky - a forged gombík with plant decoration was discovered in a waste pit from the 14th century (DOHNAL 1997, 27–28, FIG. 3: 4); at Pekařská Street 9, 13 graves looted in the Middle Ages (i.e. originally richly furnished?) were discovered (BLÁHA 2001, 62).
- TAB. NOTE 65 PŘICHYSTALOVÁ, KALÁBEK 2014.
- TAB. NOTE 66 DOHNAL 1985.
- TAB. NOTE 67 A cemetery with continuity of burials up to the 10th century and with a documented nomadic warrior component yielded at least 2 gombíky with chased decoration (KOUŘIL 2013, 215–216). Other finds have not been published.
- TAB. NOTE 68 Two undecorated copper alloy gombíky and one yellow-green glass gombík (interpreted as a pendant) were found in the grave of a child (girl), together with a necklace of 16 beads, copper alloy earrings with grooved ball pendants and a vessel (DOSTÁL 1966, 152–153).
- TAB. NOTE 69 STAŇA 1960, 90–91; 1961, 92. The remains of an elite burial ground come from the location of Předmostí – Chromečková zahrada. Here, Martin Kříž excavated 140 early medieval skeletons (including post-Great Moravian) at the site of a long-disturbed burial ground. At least 14 gombíky come from the site: a pair of gilded copper alloy gombíky with chased plant decoration, a pair of silver gombíky with chased plant decoration, one gombík from gilded copper alloy with stylised plant decoration, a pair of gombíky with silver 'poppyseed' ornamental granulation and another unpaired artefact, a pair of gold gombíky with full-surface granulation and three other silver gombíky with full-surface granulation, an unusual pear-shaped gold gombík (interpreted as a pendant). However, the connection between the objects and the graves is not clear, and I therefore do not include this interesting burial site with great research potential in the analysis (KŘÍŽ 1896, 51–61; DOSTÁL 1966, 62–63, 155–156).
- TAB. NOTE 70 In grave 5 (female?) a pair of chased gombíky with plant ornament made of gilded copper alloy, in the grave also a silver ring (from an earring?), a knife. Min. 2 axes and 2 pairs of spurs (one pair with hooks, the other pair with three rivets across the shoulder) appeared at the biritual cemetery (DOSTÁL 1966, 165–167).
- TAB. NOTE 71 In mound 1 near the skeleton of a juvenile individual (15 years old, girl), two light green glass gombíky, in the grave also a simple circular earring, a necklace of 12 glass beads, a knife (DOSTÁL 1966, 115).
- TAB. NOTE 72 In grave c in mound 12 (child - girl) there was a glass gombík made of bluish glass, in the grave there were also cast earrings with grapes and a knife (DOSTÁL 1966, 194–196).
- TAB. NOTE 73 KOUŘIL, TYMONOVÁ 2013.

TAB. 42 | Occurrence of gombíky in selected regions of Slovakia. (Table and notes continue on next pages.)

Site ⁷⁴	Type of site ⁷⁵	Approximate dating ⁷⁶	Number of graves ⁷⁷	Number of gombíky	Number of graves with gombíky	Number of sheet metal decorated gombíky	Glass gombíky	Cast gombíky	Gold/silver gombíky
Bíňa, the highest terrace (sites Hospodársky dvor fary, Farský dvor, Farská zahrada, Park, Rotunda) ⁷⁸	Local centre	Second half of 9th–first half of 10th century	37	6	2	6	-	-	-/6
Bíňa – Cénart ⁷⁹	Hinterland of the centre	Second half of 9th century	3	-	-	-	-	-	-/
Bíňa – Stredný val ⁸⁰	Hinterland of the centre?	Second half of 9th century	4	-	-	-	-	-	-/
Bíňa – Strojový park (2 sites) ⁸¹	Hinterland of the centre?	Second half of 9th–first half of 10th century	14	-	-	-	-	-	-/
Ipel'ský Sokolec, Staré pieskovisko ⁸²	Countryside	9th century	11	-	-	-	-	-	-/
Bíňa Agglomeration, total	-	-	69	6	2	6	-	-	-/6
Bratislava, Devín – Hradný areál – Pri kostole ⁸³	Central site	Second half of 9th century	6	≥3	1	≥3	-	-	-/≥3
Bratislava, Devín – Hradný areál north, north-west part ⁸⁴	Central site?	Second half of 9th–first half of 10th century	7	-	-	-	-	-	-/
Bratislava, Devín – Za kostolom ⁸⁵	Hinterland of the centre	9th–first half of 10th century	122	2	1	-	2	-	-/
Bratislava, Devín – Staré Vinohrady ⁸⁶	Hinterland of the centre	9th century	26	2	1	2	-	-	-/
Bratislava, Devín – Vinohrady pri Morave ⁸⁷	Hinterland of the centre	9th century	16	-	-	-	-	-	-/
Bratislava, Hradná vyvýšenina – Pri kostole ⁸⁸	Central site	Second half of 9th–first half of 10th century	229	4	3	4	-	-	-/1
Bratislava, Staré Mesto ⁸⁹	Hinterland of the centre	9th–first half of 10th century	51	-	-	-	-	-	-/
Bratislava, Zlaté piesky ⁹⁰	Hinterland of the centre		35	3	2	-	3	-	-/
Stupava-Mást, land of J. Máder ⁹¹	Countryside	Second half of 9th–first half of 10th century	16	1	2	-	2	-	-/
Bratislava agglomeration, total	-	-	508	15	10	9	7	-	-/4
Nitra, Staré Mesto, Hradný kopec (acropolis) ⁹²	Central site	9th–first half of 10th century	18	-	-	-	-	-	-/
Nitra, Staré Mesto, Vršok (area of presumed suburb) ⁹³	Periphery	9th–first half of 10th century	14	1	1	1	-	-	1/-
Nitra, Staré Mesto, under the slopes of Borina (outside of the fortification) ⁹⁴	Hinterland of the centre	9th–first half of 10th century	39	- ⁹⁵	-	-	-	-	-/
Nitra, Zobor ⁹⁶	Hinterland of the centre	Second half of 9th–first half of 10th century	176	16	11	3	3	-	-/
Nitra, Dolné Krškany, Mier factory ⁹⁷	Hinterland of the centre	9th century	54	2	2	-	1	-	-/
Nitra, Dolné Krškany, Dvor OSP ⁹⁸	Hinterland of the centre	9th century	5	-	-	-	-	-	-/
Nitra, Dolné Krškany, Prior department store ⁹⁹	Hinterland of the centre	First half of 9th century	6	-	-	-	-	-	-/
Nitra, Horné Krškany, Kasárne pod Kalváriou, Mäsokombinát ¹⁰⁰	Hinterland of the centre	First half of 9th century; second half of 9th–first half of 10th century	106	6	5	-	2	3	-/
Nitra, Mikov dvor ¹⁰¹	Hinterland of the centre	9th–first half of 10th century	53?	5	2	5	-	-	-/5
Nitra, Chrenová, Baumax-Shell ¹⁰²	Hinterland of the centre	9th century	11	-	-	-	-	-	-/
Nitra, Chrenová, north of Mačací zámok ¹⁰³	Hinterland of the centre	Second half of 9th–first half of 10th century	10	-	-	-	-	-	-/
Čakajovce ¹⁰⁴	Countryside	9th–12th century	805 ¹⁰⁵	48	20	3	1	35	-/
Dolné Lefantovce, Dolné Konopiská ¹⁰⁶	countryside	9th century	12	2	1	-	-	2?	-/
Nitra agglomeration, total	-	-	1309	80	42	12	7	40	1/5

Site ⁷⁴	Type of site ⁷⁵	Approximate dating ⁷⁶	Number of graves ⁷⁷	Number of gombíky	Number of graves with gombíky	Number of sheet metal decorated gombíky	Glass gombíky	Cast gombíky	Gold/silver gombíky
Ducové ¹⁰⁷	Central site	Second half of 9th–first half of 10th century	25	2	1	2	-	-	-/
Pobedim, Hradištia ¹⁰⁸	Central site	Second half of 9th–first half of 10th century	99	?	?	≥ 2	≥ 2	?	-/
Pobedim, Na laze ¹⁰⁹	Hinterland of centre	Second half of 9th–first half of 10th century	142	5	4	-	3	-	-/
Ducové region, total	-	-	266	7	5	4	5	-	-/
Michal nad Žitavou, Domovina ¹¹⁰	Countryside	9th–first half of 10th century	34	3	2	-	2	-	-/
Abrahám, Komárov vrškok ¹¹¹	Countryside	9th century	2	1	1	1	-	-	-/
Cífer-Pác, Drahý ¹¹²	Countryside	9th–first half of 10th century	37	1	2	2	-	-	-/
Smolenice, Záhumenice ¹¹³	Countryside	Second half of 9th–first half of 10th century	43	3	3	-	-	1	-/1
Veľký Grob, Za potoky ¹¹⁴	Countryside	9th–first half of 10th century	133	2	1	-	2	-	-/
Bajč, Medzi kanálmi; Sociálny dom ¹¹⁵	Countryside	9th century	26	≥ 2	2	-	2	-	-/
Mužla-Čenkov, Orechový sad ¹¹⁶ , Vilmarket ¹¹⁷	Countryside	9th–first half of 10th century	64	2	2	1	-	1	-/1
Svätý Peter, Kistrét ¹¹⁸	Countryside	9th century	68	1	1	-	-	1?	-/
Galanta, Papföld ¹¹⁹	Countryside	10th century	22	4	3	1	-	3	-/
Šaľa, Veča, Pieskovisko ¹²⁰	Countryside	Second half of 9th–first half of 10th century	25	3	1	3	-	-	-/3
Trnovec nad Váhom, Horný Jatov, Remízka ¹²¹	Countryside	9th–11th century	528	6	6	-	1	5	-/
Tvrdošovce, Kerekútó ¹²²	Countryside	9th century	24	1	1	-	1	-	-/
Southwest Slovakia, total			3158	137	84 ¹²³	39	27	51	1/17

TAB. NOTE 74 The selection and order of sites is based on the data in the book *Velkomoravské pohrebiská* (HANULIAK 2004).

TAB. NOTE 75 M. Hanuliak dealt with the structure of cemeteries in connection with the economic-social structure of the central territories of Slovakia (2009, 62–72).

TAB. NOTE 76 HANULIAK 2004.

TAB. NOTE 77 Most of the Slovak sites were used for a long time and the graves are not included in the exact time period of the Early Middle Ages. For that reason, the number is only approximate and as a rule is not related to the extent of the Great Moravian cemetery.

TAB. NOTE 78 The remains of an elite burial ground were discovered in several places in the highest fortified position of the castle. The richest grave 14 (woman 17–25 years old, perhaps with a newborn) comes from the location 'Hospodársky dvor fary'. It contained, among other things, two silver gombíky with chased plant (?) ornament and two silver gombíky with full-surface granulation; min. nine silver bead earrings, three silver earrings with a column-shaped pendant, a silver granulated bezel ring, a copper sheet metal ring and two knives; Holčík 1991, 85–105. Two silver sheet metal gombíky with chased plant decoration were also in the child's grave at the 'Farská zahrada' location; HOLČÍK 1980, 113–114, 327.

TAB. NOTE 79 RUTTKAY, CHEBEN 1992, 109–132.

TAB. NOTE 80 HABOVŠTIAK 1966, 466–467.

TAB. NOTE 81 After HANULIAK 2004, 256.

TAB. NOTE 82 VENDTOVÁ, REJHOLEC 1963, 237–246.

TAB. NOTE 83 A complete pair and other fragments of silver vertically ribbed gombíky were found in the grave of an infant 191/86; PLACHÁ, HLAVICOVÁ 2011, 96–97.

TAB. NOTE 84 HANULIAK 2004, 257.

TAB. NOTE 85 A pair of glass gombíky was found in children's grave 113; PLACHÁ, HLAVICOVÁ 2011, 62.

TAB. NOTE 86 A pair of undecorated polyhedral copper alloy gombíky were found in children's grave 24; KRASKOVSKÁ 1963, 391–406.

TAB. NOTE 87 KELLER 1978, 117–118.

TAB. NOTE 88 Section of the Great Moravian burial ground around the church building, with gombíky: children's grave 53 (silver two-layered gombíky), children's grave 174 (two gilded copper alloy gombíky with geometric chased ornament) and adult grave 177 (again gilded copper alloy gombíky with geometric chased ornament); ŠEDIVÝ, ŠTEFANOVIČOVÁ EDS. 2012, 323–326; ŠTEFANOVIČOVÁ, FIALA 1967, 151–216.

TAB. NOTE 89 Min. 51 Great Moravian graves were found during rescue research in modern-day Bratislava east of the Castle; ŠEDIVÝ, ŠTEFANOVIČOVÁ EDS. 2012, 337–346.

TAB. NOTE 90 Rural cemetery at a distance of about 7 km from Bratislava Castle is distinguished by an unusual number of multiple graves; three glass gombíky were found at the site (graves 5, 6); ŠEDIVÝ, ŠTEFANOVIČOVÁ EDS. 2012, 348–350.

TAB. NOTE 91 Among other things, grave 2 with two glass gombíky (combined with a necklace) was rescued from the disturbed burial ground; KRASKOVSKÁ 1954, 145–146.

TAB. NOTE 92 In the area of the former fortified acropolis of the castle, in the built-up area (location SE bastion, Plague Column, Pribinovo nám., Východné nadvorie, Západný svah), 18 graves from the Great Moravian period, without gombíky, were incidentally discovered in different places; for more details, see the references to literature in HANULIAK 2004, 271.

TAB. NOTE 93 Relics of burial grounds and settlement graves were discovered in the presumed fortified suburb (Piaristická and Farská streets), see HANULIAK 2004, 271–272 for more detailed literature; a solitary gold gombík with vertical ribbing, collected from the destroyed graves at Piaristická Street 12 in 1961, has a very close analogy in Uherské Hradištie – Sady, grave 19/59 (ČAPLOVIČ 1954, 37).

- TAB. NOTE 94 Several burial grounds south and southwest of the fortified suburb (Branecského, Špitálská, Štefánikova, Štúrova, Železničarska streets), without gombíky; for detailed literature, see HANULIAK 2004, 270, 272.
- TAB. NOTE 95 M. HANULIAK (2004, 269) records the occurrence of a gombík in Železničarska Street – apparently there is a report about it in the unpublished find report.
- TAB. NOTE 96 The slopes of Zobor Hill show heavy early medieval settlement, which is interpreted as a network of separate settlements and burial grounds (FUSEK 2008, 271–290); in my work, I combined the local burial grounds into one block (based on the publication HANULIAK 2004, 272–273: Dražovská cesta, Dolnozoborská cesta, Lupka, Martinský vrch, Šindolka). Gombíky were discovered in the following locations and graves: Zobor – Dolnozoborská cesta (research 1973, 51 graves, CHROPOVSKÝ 1978, 99–122), grave 15 with gombíky; Zobor – Lupka (research 1959, 92 graves, CHROPOVSKÝ 1962, 175–240), with gombíky in graves 8, 10, 34, 43, 47, 71, 82; Zobor – Šindolka-Vinohrady (research 1961, one grave, HANULIAK 2004, 273, TAB. LXXII: 4). The find situation in the location of the Amphitheatre can be characterised as extraordinary: in grave 38, S-shaped temple rings, a bronze necklace and a bracelet made of braided wire and two chased sheet metal gombíky with a stylised geometrising decoration reminiscent of two-layered specimens were discovered simultaneously; also in grave 73, a sheet metal button with chased geometrising decoration was found together with S-shaped temple rings; both gombíky finds are interpreted as pendants. In addition, another sheet metal chased gombík with a motif of birds was found during a rescue excavation (ČAPLOVIČ 1954, 27, 29).
- TAB. NOTE 97 Two graves contained one gombík: in grave 13 an undecorated copper alloy item, in grave 17 a glass gombík; CHROPOVSKÝ 1977, 134–137; HANULIAK, CHROPOVSKÝ 2019A, 287–365.
- TAB. NOTE 98 BIALEKOVÁ 1989, 211
- TAB. NOTE 99 BIALEKOVÁ 1989, 211
- TAB. NOTE 100 At the Mäsokombinát site, the temporally and ethnically diverse burial site yielded cast ‘mushroom’ buttons (grave 34), half of a cast vertically segmented pendant (grave 81), an undecorated metal gombík/button (grave 29), two undecorated glass gombíky, at least one of which was a necklace pendant (grave 16 and 75); HANULIAK, CHROPOVSKÝ 2019B, 142–143. Nearby was a second burial ground (?) southwest of the Calvary slopes with five salvaged graves, no buttons/gombíky.
- TAB. NOTE 101 Part of the group of graves discovered during rescue research in the settlement area was richly furnished juvenile female grave 14, which contained elite Great Moravian goods, including two pairs of sheet metal gombíky – one originally two-layered, the other with chased plant ornamentation; another silver gombík was found in the adjacent female grave 15 (CHROPOVSKÝ 2002, 49–53; FUSEK 2008, 275, 278–280).
- TAB. NOTE 102 HANULIAK 2004, 270.
- TAB. NOTE 103 BIALEKOVÁ 1989, 216, 217.
- TAB. NOTE 104 Typologically varied gombíky were discovered at a burial site with a broad chronology; sheet metal: in grave 191, a pair of copper alloy sheet metal gombíky with soldered filigree rings; in grave 426, one copper alloy sheet metal gombík with soldered filigree wires; in grave 451, fragments of at least three sheet metal gombíky; in grave 475, loop of a sheet metal gombík, in grave 614, undecorated copper alloy gombík, in grave 763, part of an undecorated copper alloy gombík, in grave 770, an undecorated copper alloy gombík, production variant B (with collar. A single glass gombík comes from grave 123 (in a necklace context); the majority at the site are cast ‘buttons’, namely vertically divided undecorated specimens from two hollow halves, one piece each in graves 123, 156 (3 pieces), 351, 426 and 646, and one more similarly decorated one in grave 426, in the same grave also a unique example of a pear-shaped artefact with chased decoration identical to the decorated vertically divided one (4 buttons in total in this grave), and finally small solid cast ‘buttons’, mostly mushroom-shaped, sometimes with cast decoration, in graves 123 (4 pieces), 124, 376 (2 pieces), 351 (3 pieces), 391 (2 pieces), 458, 468 (2 pieces), 513, 567 (2 pieces), 579 (4 pieces), 646 (3 pieces), 743; REJHOLCOVÁ 1995A; 1995B; HANULIAK, REJHOLCOVÁ 1999.
- TAB. NOTE 105 In the publication of M. Hanuliak and M. Rejholcová (1999, 7–13), 146 graves from Čakajovce are included in the Great Moravian horizon. However, the authors did not publish the division of specific graves into individual horizons, and the grave units with finds can only be generally traced through serialisation tables. In addition, Š. UNGERMAN (2007, 40–42) subjected their serialisation graphs to convincing criticism. Button-like artefacts are also found in the post-Great Moravian horizon. For these reasons, I abandoned the chronological specification of the graves.
- TAB. NOTE 106 Two iron ‘buttons’ in a textile bundle were found in the grave of a minor; REJHOLCOVÁ 1992, 251–276.
- TAB. NOTE 107 Two unpaired gilded copper alloy gombíky covered with chased plant ornament were found in children’s grave 1070 along with five silver earrings with column-shaped pendants: male graves predominate in the older phase of the cemetery; JAKAB, RUTTKAY, STLOUKAL 1979, 119–140.
- TAB. NOTE 108 Graves with an unpublished quantity of glass gombíky were discovered on the site, and the graves are interpreted as part of the terminal horizon after the destruction of the hillfort with burials of the rural population; two glass gombíky and two copper alloy gombíky with soldered rings discovered in grave 42; BIALEKOVÁ 1963, 351, 355–356; 1965, 534–535; 1972, 123–124.
- TAB. NOTE 109 From female grave 59 comes one glass gombík, from child grave 75 two glass gombíky, from child grave 84 a gilded(?) bronze gombík that strongly resembles a bell, and an undecorated copper alloy gombík was deposited in grave 90 (VENDTOVÁ 1969, 171–193).
- TAB. NOTE 110 All three gombíky – two glass (grave 20) and one undecorated made from copper alloy (H 7) were found together with S-shaped temple rings; TOČÍK 1971, 191–199.
- TAB. NOTE 111 Two incidentally discovered Great Moravian graves: grave 1 contained the burial of a child with silver grape earrings with braided wire applied at three-quarters of the height of the arc and a copper alloy gombík(?) (apparently the type with soldered bosses), CHROPOVSKÝ ED. 1978, 11–12.
- TAB. NOTE 112 Grave 19 of a juvenile contained a pair of copper alloy gombíky that were decorated with imitation granulation produced by a unique technique using chasing from the inner side; ZÁBOJNÍK 1985, 205–216.
- TAB. NOTE 113 Burial ground belonging partly to the post-Great Moravian period; in grave 10/72 a cast mushroom-shaped button; in grave 11/72 a silver (?) undecorated gombík; in grave 55/72 an undecorated copper alloy gombík (DUŠEK 1979, 365–372).
- TAB. NOTE 114 In children’s grave 77, two light green glass gombíky; CHROPOVSKÝ 1957, 181.
- TAB. NOTE 115 Glass gombíky were found at two burial sites, min. two pieces in two graves; ČAPLOVIČ, CHEBEN, RUTTKAY 1988, 40; TOČÍK 1992, 115–118.
- TAB. NOTE 116 Children’s grave 5, in which ‘two gilded silver gombíky (from a belt ornament?), decorated with tausia’ were found, later re-interpreted unambiguously as belt fittings (see KUZMA, ŠALKOVSKÝ 1986, 138; HANULIAK, KUZMA 2015, 274); I do not include them in the total number of gombíky.
- TAB. NOTE 117 At the Vilmarket site, there was one cast button in female grave 39 and one silver sheet metal gombík with chased plant decoration in children’s grave 44; HANULIAK, KUZMA 2015, 155, 156.
- TAB. NOTE 118 An iron ‘gombík’ was found in grave 57 (BÉREŠ 1995, 111–158).
- TAB. NOTE 119 At a 10th-century burial site with a nomadic (ancient Hungarian) component, several cast buttons: in grave 3 a mushroom-shaped copper alloy piece, in grave 5 a mushroom-shaped lead button, in grave 13 a mushroom-shaped copper alloy button, another two mushroom-shaped copper alloy specimens were found in collections from disturbed graves; in grave 13, a chased sheet metal gombík with geometric decoration made of a gilded copper alloy (in the grave also, for example, a wire bracelet, a chain, heart-shaped silver-tin hangers); other graves from an excavation in 1971 not yet published; at the Matúškovo – Kertalja site, two more cast mushroom-shaped buttons and two undecorated sheet metal ‘gombíky’ made of copper alloy from disturbed graves were found; TOČÍK 1992, 139–156.
- TAB. NOTE 120 Male grave 1 contained three silver sheet metal gombíky – two with chased plant ornament, one polyhedral with ‘poppyseed’ granulation, also an axe, a spear, a flint and a bucket; TOČÍK 1992, 118–132.
- TAB. NOTE 121 The largest excavated Slovak burial ground can be dated to the 9th–11th century; four graves (61, 128, 160, 278) contained small mushroom-shaped buttons, often in the context of a necklace; in grave 193 it was a glass gombík; in grave 230 it was also a mushroom-shaped button, but with a hemispherical, straight-ended head (TOČÍK 1971, 135–184).
- TAB. NOTE 122 Fully investigated small burial site with one glass gombík in grave 6 (TOČÍK 1971, 209–214).
- TAB. NOTE 123 E. Pavlovičová lists 93 gombíky for Slovakia (PAVLOVIČOVÁ 1996, 98), M. Hanuliak lists 69 graves with gombíky from Slovakia (HANULIAK 2004, 177).

TAB. 43 | Occurrence of gombiky in selected central regions of Bohemia. (Table and notes continue on next pages.)

Site ¹²⁴	Type of site ¹²⁵	Approximate dating	Number of graves	Number of gombiky	Number of graves with gombiky	Number of sheet metal decorated gombiky	Number of sheet metal undecorated gombiky	Glass gombiky	Cast gombiky	Gold/silver gombiky
Prague, Prague Castle, 2nd courtyard (Church of the Virgin Mary) ¹²⁶	Central site	First third of 10th century-13th century	81	-	-	-	-	-	-	-/-
Prague, Prague Castle, 3rd courtyard (near the obelisk, St. Vitus complex) ¹²⁷	Central site	Before 900-14th century	≥ 247	-	-	-	-	-	-	-/-
Prague, Prague Castle, Jízdárna (also the central and eastern group of the Jízdárna area) ¹²⁸	Central site?	Last third of 9th century-beginning of the 11th century	66	-	-	-	-	-	-	-/-
Prague, Prague Castle, Lumbe Garden (as well Za jízdnou or western group of the Jízdárna area) ¹²⁹	Central site	Last third of 9th century-beginning of 11th century	141	21	8	20	-	1	-	2/4
Prague, Prague Castle - Královská Garden ¹³⁰	Central site?	Last third of 9th century-first half of 10th century	-	1	1	1	-	-	-	-/-
Prague, Prague Castle - Jelení Street (as well Jelení Street - Lumbe Garden) ¹³¹	Hinterland of the centre?	Last third of 9th century-first half of 10th century	15	-	-	-	-	-	-	-/-
Prague, Prague Castle, Jiřská Street (near Daliborka Tower) ¹³²	Central site?	Early Middle Ages	≥ 5	-	-	-	-	-	-	-/-
Prague, Hradčany - Strahov ¹³³	Hinterland of the centre	End of the 9th century-10th century	-	2	2	2	-	-	-	-/1
Prague, Střešovice - crossroad of Prašný Bridge (as well Milady Horákové Street) ¹³⁴	Hinterland of the centre	End of the 9th century-10th century	77	1	2	2	-	-	-	-/-
Prague, Střešovice - Triangl ¹³⁵	Hinterland of the centre	10th century	50	8	1	4	4	-	-	-/-
Prague, Střešovice - Malovanka ¹³⁶	Hinterland of the centre	10th century	-	3	1	2	1	-	-	-/-
Prague, Střešovice - Panenská ¹³⁷	Hinterland of the centre	10th century	-	-	-	-	-	-	-	-/-
Prague, Střešovice - Strahovská brickyard ¹³⁸	Hinterland of the centre	10th century	-	-	-	-	-	-	-	-/-
Prague Castle agglomeration, total ¹³⁹	-	-	≥ 682	36	15	31	5	1	-	2/5
Stará Kouřim, U Libuše (as well as Libušino Lake) ¹⁴⁰	Local centre	9th century-first half of 10th century	152	18	7	17	1?	-	-	-/10
Stará Kouřim, inner hillfort ¹⁴¹	Local centre?	Second half of 10th century	38	-	-	-	-	-	-	-/-
Stará Kouřim agglomeration, total	-	-	190	18	7	17	1?	-	-	-/-
Klecany II, hillfort ¹⁴²	Local centre	End of 9th century-10th century	40	3	1	-	3	-	-	-/-
Klecany I (castle garden), forecourt of the hillfort ¹⁴³	Hinterland of the centre	Last third of the 9th century-first half of the 11th century	82	1	1	1	-	-	-	-/-
Roztoky, Žalov, Levý Hradec Hillfort, Church of Saint Clement ¹⁴⁴	Local centre	Second half of 9th century-first third of 10th century	84	-	-	-	-	-	-	-/-
Roztoky, Žalov, extra-mural settlement of hillfort, Na Panenské ¹⁴⁵	Local centre	Second half of 9th century-first third of 10th century	≥ 146	-	-	-	-	-	-	-/-
Roztoky, Žalov, extra-mural settlement of hillfort, brickyard ¹⁴⁶	Hinterland of the centre	Second half of 9th century -second half of 10th century	46	8	6	8?	-	-	-	-/2
Libčice nad Vltavou, Kralupská, 5. května, Letky, Chýnov ¹⁴⁷	-	Second half of 9th century-10th century?	-	1	1	1	-	-	-	-/-
Levý Hradec - Klecany Agglomeration, total ¹⁴⁸	-	-	≥ 398	12	8	9?	3	-	-	-/2
Kováry, Budeč Hillfort, Rotunda of Saint Peter ¹⁴⁹	Central site	First half of 10th century	56	1?	1	1	-	-	-	-/1
Zákolany, sugar factory, extra-mural settlement of Budeč Hillfort ¹⁵⁰	Central site	Second half of 9th century-first half of 10th century	≥ 100	2	2	2	-	-	-	-/1

Site ¹²⁴	Type of site ¹²⁵	Approximate dating	Number of graves	Number of gombíky	Number of graves with gombíky	Number of sheet metal decorated gombíky	Number of sheet metal undecorated gombíky	Glass gombíky	Cast gombíky	Gold/silver gombíky
Kováry, Budeč Hillfort, Na Týnici ¹⁵¹	Hinterland of the centre	Second half of 9th-10th century	114	-	-	-	-	-	-	-/-
Libochovičky ¹⁵²	Hinterland of the centre	End of 9th century-first half of 10th century	1	1	2	2	-	-	-	-/-
Brandýsek, sandpit ¹⁵³	Hinterland of the centre	End of the 9th century-first half of the 10th century	52	-	-	-	-	-	-	-/-
Stehelčevy, U cihelny ¹⁵⁴	Hinterland of the centre	End of the 9th century-first half of the 10th century	≥ 6	-	-	-	-	-	-	-/-
Žižice, V Rostelích ¹⁵⁵	Countryside	9th-10th century?	18	6	3	1	2	2	1	-/-
Budeč agglomeration, total ⁶	-	-	≥ 347	10	8	6	2	2	1	-/2
Libice nad Cidlinou, acropolis ¹⁵⁷	Central site	Second half of 9th-10th century	369	12	8	12	-	-	-	-/4
Opolany, Kanín I, II, III ¹⁵⁸	Central site	Second half of 9th-10th century	213	2	1	2	-	-	-	-/-
Libice nad Cidlinou, near train station ¹⁵⁹	Hinterland of the centre	10th century	53	-	-	-	-	-	-	-/-
Libice nad Cidlinou, U cukrovary ¹⁶⁰	Hinterland of the centre	Second half of the 9th-10th century	82	-	-	-	-	-	-	-/-
Libice nad Cidlinou, Na růžku ¹⁶¹	Hinterland of the centre	Second half of 9th-10th century	12	-	-	-	-	-	-	-/-
Libice nad Cidlinou, Catholic and Protestant cemetery ¹⁶²	Hinterland of the centre?	Second half of the 9th-10th century	-	-	-	-	-	-	-	-/-
Libice nad Cidlinou agglomeration, total ¹⁶³	-	-	≥ 729	14	9	14	-	-	-	-/4
Stará Boleslav, inner castle ¹⁶⁴	Central site	Second half of 9th-10th century	≥ 296	-	-	-	-	-	-	-/-
Stará Boleslav, outer bailey ¹⁶⁵	Central site	Second half of 10th century-12th century	-	-	-	-	-	-	-	-/-
Dřevčice, sandpit ¹⁶⁶	Countryside?	Second half of 9th-10th century?	-	-	-	-	-	-	-	-/-
Brandýs nad Labem, Brázdímská + unknown site ¹⁶⁷	Countryside?	Second half of 9th-10th century?	≥ 12	-	-	-	-	-	-	-/-
Zápy ¹⁶⁸	Countryside?	10th-11th century?	≥ 9	-	-	-	-	-	-	-/-
Čelákovice ¹⁶⁹	Countryside?	10th-11th century	≥ 19	-	-	-	-	-	-	-/-
Nehvizdy, Nehvizdky ¹⁷⁰	Countryside	End of 9th century-first half of 10th century	≥ 7	-	-	-	-	-	-	-/-
Mochov, parcel number 347, 352, Pískovna za cukrovarem ¹⁷¹	Countryside	Second half of 9th-10th century?	-	-	-	-	-	-	-	-/-
Zeleneč ¹⁷²	Hinterland of the centre?	End of 9th century-first half of 10th century	144	1?	1	-	-	-	-	-/-
Stará Boleslav agglomeration, total ¹⁷³	-	-	≥ 487	1	1?	-	-	-	-	-/-
Kolín I (historical centre) ¹⁷⁴	Central site	9th century	1	-	-	-	-	-	-	-/-
Kolín II, III, IV (right bank), including 'princely double burial' ¹⁷⁵	Central site	9th- 10th century	≥ 30	6	2	5?	-?	-	-	-/-
Kolín countryside (left bank) ¹⁷⁶	Hinterland of the centre?	9th-10th century	≥ 17	-	-	-	-	-	-	-/-
Kobylnice ¹⁷⁷	Hinterland of the centre?	9th century	1	-	-	-	-	-	-	-/-
Kolín agglomeration, total ¹⁷⁸	-	-	≥ 48	5	1	5	-	-	-	-/-
Zabrušany, hillfort ¹⁷⁹	Central site	8th/9th-10th century	Not found	-	-	-	-	-	-	-
Želénky, Liščí vršek ¹⁸⁰	Central site	Second half of 9th century	6	2	1	2	-	-	-	2/-
Zabrušany agglomeration, total	-	-	6	2	1	2	-	-	-	2/-
Bohemia, total	-	-	≥ 2 887	99	51	85	11	3	1	4/13

- TAB. NOTE 124 Finds of gombíky in Bohemia were last published in an overview by N. Profantová (PROFANTOVÁ A KOL. 2015, 98–99).
- TAB. NOTE 125 For Prague according to TOMKOVÁ, FROLÍK 2005, 7–24; FROLÍK, KAPOVÁ 2016, 116. Burials before the 11th century have not been confirmed at the location of Saint George's Convent, see Mašterová 2016, 85–158.
- TAB. NOTE 126 FROLÍK 2013, 91–105; FROLÍK ED. 2017, LIST OF GRAVES AND DATING 149–151; church built around 882/884, in the exterior, around 18 graves with possible dating to the 10th century, in the interior, probably the cenotaph of Bořivoj I († c. 890) and Spytihněv I († after 915) and his wife.
- TAB. NOTE 127 FROLÍK 2005, 30–31; the remains of Prince Wenceslas (Václav) are kept in the rotunda, as well as graves K1 (perhaps Boleslav I/Boleslav II) and K2 (perhaps the respective wife of Biagot/Emma).
- TAB. NOTE 128 TOMKOVÁ 2005B, 387–402; 2006, 13–77.
- TAB. NOTE 129 The richest Czech burial ground for gombíky; in grave 16, a young woman was buried with, among other things, 13 silver earrings with beads in the shape of horse heads, with a wire necklace with a hanging captorga and a pair of gold gombíky with green and blue glass inlays and soldered filigree; a similar find situation was found in grave 53, this time it was the grave of a woman in the age of maturus I, equipped with, among other things, eight earrings with beads, again a chain made of braided wire, a captorga and a pair of silver gilded gombíky decorated with 'poppyseed' granulation and glass inlays; in children's grave 74B there was a pair of vertically ribbed gombíky made of gilded copper alloy with a glass inlay and a glass gombík with a glass loop (!) (in the grave, among other things, a bell and an axe); a pair of gilded copper alloy gombíky with an anthropomorphic motif in rhombus medallions with intersecting lines was discovered in children's grave 84; in children's grave 99 there was a pair of gombíky made of gilded copper alloy decorated with chased plant ornament; in children's grave 104, two pairs of gilded copper alloy gombíky were discovered together with earrings, the first pair was decorated with chased geometrical ornament in the form of crosses in circular medallions, the second pair with chased motif of 'cross leaves'; in children's grave 108, it was a pair of gilded copper alloy gombíky with a stylised plant ornament and a cross on the lower pole; another four gombíky come from grave 115, a juvenile individual was buried with, among other things, five silver grape earrings, a pair of silver gombíky with a bird ornament and a cross pattée on the lower pole, and another pair of gilt copper alloy gombíky with a rosette motif in medallions encircled by human hands; FROLÍK, SMETÁNKA 2014.
- TAB. NOTE 130 A large chased gilded copper alloy gombík with a cross motif in a circular medallion was later identified in the National Museum's collections as an artefact discovered at the site in 1837; SKLENÁŘ, SLÁMA 1976, 661–662; TOMKOVÁ 2006, 5–12.
- TAB. NOTE 131 TOMKOVÁ 2006, 78–104.
- TAB. NOTE 132 TOMKOVÁ, MATÍŠEK 2016, 159–165.
- TAB. NOTE 133 In two children's graves, there was always one gombík with chased decoration in a plant ornament: grave 38/79 contained a specimen made of a gilded copper alloy, grave 59/79 a silver piece; TOMKOVÁ 2005A, 225; DRAGOUN 2006, 129–144.
- TAB. NOTE 134 Grave 2, with the burial of a young woman, also contained earrings with eyelets, silver and amber beads, as well as two gombíky with chased decoration made of gilded copper alloy; TOMKOVÁ 2013, 48–52.
- TAB. NOTE 135 In children's grave 16, eight copper alloy gombíky were discovered, of which four were undecorated sheet metal specimens and four were specimens with soldered rings of twisted wire; gombíky may have been part of a necklace; FROLÍKOVÁ-KALISZOVÁ 2014, 320–321; 2020, 48–49.
- TAB. NOTE 136 Three copper alloy (?) gombíky come from grave 1/1933: a large gilded artefact with vertical ribbing supplemented with soldered beaded wire at the rib depression, an almost identical gilded smaller specimen, and an ungilded undecorated sheet metal button; TOMKOVÁ 2005A, 223–224; 2006, 123–124.
- TAB. NOTE 137 TOMKOVÁ 2006, 115–121.
- TAB. NOTE 138 TOMKOVÁ 2006, 115–121.
- TAB. NOTE 139 Sites collected primarily by TOMKOVÁ, FROLÍK 2005, 7–24.
- TAB. NOTE 140 The so-called princely burial ground: in children's grave 86, a pair of gombíky made of gilded copper alloy with plant chased decoration (oriental tendrils similar to, for example, the decoration of some vessels from the treasure from Sannicolau Mare); in grave 96b (adult, anthropologically male, archaeologically female) a pair of silver gombíky with a net scheme with plant chased decoration; in juvenile grave 97 a pair of gilt copper alloy gombíky with chased heavily stylised geometric decoration (misunderstanding the pattern?); in female grave 106b-c (the so-called grave of the Kouřim princess) a total of four silver gombíky were discovered in two pairs matched together and decorated with stylised plant ornamentation (misunderstanding of the pattern?); in female grave 110, a silver gombík with a plant ornament (the structure of the decoration and slightly elongated shape resembles specimens 1037a/57 and 1037b/57 from Mikulčice), in the grave perhaps one more gombík made of a copper alloy (not shown) and also an iron bowl-shaped form with a diameter of 22 mm interpreted as a mould for the production of gombíky; in children's grave 111 'iron exudates from a gombík, heavily penetrated by rust' (?) - I don't count; in children's grave 113a, a pair of gilt copper alloy gombíky with crosses pattée; in children's grave 132 one pair of small silver gombíky with soldered rings and one gombík made of a gilded copper alloy with spiral decoration (analogy in Staré Město - Na Valách, graves 122/51, 192/51; in Mikulčice, graves 544 and 1526), and also a silver gombík with full-surface granulation; ŠOLLE 1966.
- TAB. NOTE 141 The area of the former hillfort used for burials after the centre was moved to Saint George and Saint Adalbert (Vojtěch); ŠOLLE 1966; ŠOLLE 1981.
- TAB. NOTE 142 A trio of chased, undecorated copper alloy gombíky was found in children's grave 35, PROFANTOVÁ A KOL. 2015, 170.
- TAB. NOTE 143 In children's grave H1/F, a small gilded copper alloy gombík with vertical ribs, found under a skull; PROFANTOVÁ A KOL. 2015, 96–99.
- TAB. NOTE 144 TOMKOVÁ A KOL. 2012; 2020.
- TAB. NOTE 145 TOMKOVÁ A KOL. 2012; 2020.
- TAB. NOTE 146 Gombíky in the graves in the area of the brickyard: children's grave 11/1912 - gombík with chased decoration from a gilded copper alloy with geometric ornament with intersected ledges; grave 22/1912 - gombík with chased decoration from gilded copper alloy with geometric ornament with intersected ledges; (double) tomb 31/1912 - gombík with chased decoration from a gilded copper alloy with plant ornament (a stylised cordate meander) and two loops from other silver gombíky; grave 52/1913 - gombík with chased decoration made of gilded copper alloy with plant ornament; children's grave 47/1952 - gombík from copper alloy with rings of smooth wire (tiny, sparse - they resemble background rings for granules), in the context of a necklace; juvenile (?) grave 65/1952 - gombík with chased decoration from gilded copper alloy with stylised ornament (failed?), makes sound (object inside); TOMKOVÁ 2012; 2020. TOMKOVÁ A KOL. 2012; 2020.

- TAB. NOTE 147 From a number of locations in the cadastre of the village, there is evidence of early medieval burial grounds, excavated since the 19th century. In an unspecified grave in 5. května Street, a gilded copper alloy gombík with full-surface granulation was discovered around 1890; SLÁMA 1977, 66–69.
- TAB. NOTE 148 TOMKOVÁ A KOL. 2012; 2020; PROFANTOVÁ A KOL. 2010; 2015.
- TAB. NOTE 149 The only gombík from the burial site comes from a secondary position from the disturbed strata inside the church above grave 344 – it is a gilded silver specimen with chased interlace decoration; ŠOLLE 1990, 165; BARTOŠKOVÁ, ŠTEFAN 2006, 736.
- TAB. NOTE 150 Fourteen graves examined in 1978, other graves destroyed earlier; gombíky without further context come from old rescue activities from the early 20th century: a gilded copper alloy gombík with a bird motif in a diamond field and a silver gombík with rosettes in a net scheme formed by interlace; ŠOLLE 1982, 197–199.
- TAB. NOTE 151 The original number of graves was about 200.
- TAB. NOTE 152 Accidental discovery of a grave from 1847; the grave also contained, in addition to a sword and amber beads, two gilded copper alloy gombíky with a chased rosette motif in a circular field; the grave furnishings would indicate the burial of at least two individuals (man and woman; similar conclusion already published by A. BARTOŠKOVÁ AND I. ŠTEFAN, 2006, 746); the authors draw attention to the similarity of the gombík with the find from Nitra – Zobor (Amphitheatre location); SLÁMA, SKLENÁŘ 1974, 625–627.
- TAB. NOTE 153 KYTLICOVÁ 1968, 193–248.
- TAB. NOTE 154 SLÁMA 1977, 155–156.
- TAB. NOTE 155 Gombíky come from three graves: in children's grave 3 there were two glass gombíky and one iron gombík; in grave 17 there were two undecorated gombíky; a silver-plated copper alloy gombík decorated with 'poppyseed' granulation comes from disturbed graves; SLÁMA 1977, 189–192.
- TAB. NOTE 156 Sites collected after BARTOŠKOVÁ, ŠTEFAN 2006, 724–757.
- TAB. NOTE 157 In grave 110, a copper alloy gombík with chased plant ornament; in grave 130 a small copper alloy gombík with rosette motifs in a net scheme; in female grave 135 a pair of silver buttons with chased plant ornament; in grave 159 a disintegrated copper alloy gombík; in grave 164 a copper alloy gombík with chased decoration and damaged ornament; in grave 245a a pair of gilded copper alloy gombíky with chased decoration with geometric ornament arranged in a net scheme; in grave 268 a pair of silver gombíky with bosses and 'poppyseed' granulation arranged in the form of a cross pattée; in male grave 329 a pair of gilded copper alloy gombíky; TUREK 1976, 249–316.
- TAB. NOTE 158 In grave 148, a pair of gombíky made of gilded copper alloy with atypical decoration of dense vertical ribbing accented on the lower pole with a cross motif in a medallion; MAŘÍK 2009, 72–99, TAB. 47.
- TAB. NOTE 159 MAŘÍK 2009, 105–108.
- TAB. NOTE 160 MAŘÍK 2009, 99–105.
- TAB. NOTE 161 MAŘÍK 2009, 110–112.
- TAB. NOTE 162 MAŘÍK 2009, 111.
- TAB. NOTE 163 Sites collected after MAŘÍK 2005, 331–350.
- TAB. NOTE 164 BOHÁČOVÁ ED. 2003, 221–224; SLÁMA 1977, 153.
- TAB. NOTE 165 BOHÁČOVÁ ED. 2003, 224–225; SLÁMA 1977, 153; SOMMER 1977, 394–405.
- TAB. NOTE 166 Sláma 1977, 38–39.
- TAB. NOTE 167 Sláma 1977, 24.
- TAB. NOTE 168 Sláma 1977, 180–181.
- TAB. NOTE 169 Sláma 1977, 28–28; Špaček, Snítily 2003, 322–340.
- TAB. NOTE 170 Sláma 1977, 81–82.
- TAB. NOTE 171 ŠPAČEK, SNÍTILÝ 2003, 349–357.
- TAB. NOTE 172 A fragment of a hollow spherical object with a loop comes from the context of disturbed child's grave 138, which could be the remains of a gombík (bells have a loop cast in one piece with the artefact – this possibility does not seem likely according to the drawing); LUTOVSKÝ, ŠPAČEK 2020, 54–55.
- TAB. NOTE 173 Sites collected after BOHÁČOVÁ ED. 2003, 13; BOHÁČOVÁ 2008, 183–184.
- TAB. NOTE 174 The historical core is perhaps hypothetically identifiable with an early medieval hillfort, although evidence of fortifications of this age has not yet been found; destroyed double burial (two men?) with spurs, a glass vessel fragment, iron buckle, bucket; KOŠTA, LUTOVSKÝ 2014, 122.
- TAB. NOTE 175 In the right-bank strip around the supposed hillfort, evidence of cemeteries, mostly destroyed during construction work; VALENTOVÁ, TVRDÍK 2004, 555–562; from a grave in the position of 'Zengrova', a 'sugar factory', an unspecified gombík comes from one grave; HRALA 1985, 47; the lone 'princely' double burial (male and female) destroyed in the area of the brickyard in 1864 can be described as the most important Czech early medieval grave; it also contained – without the possibility of identifying a more precise location – five gombíky: a pair of gilded copper alloy gombíky with soldered decoration of twisted filigree wires and massive granules, a pair of gilded alloy gombíky with vertical ribbing, granulation and a glass inlay, and a solitary gombík again in gilded copper alloy with chased heavily stylised ornament (misunderstanding the original?); KOŠTA, LUTOVSKÝ 2014, 37–39; 93–99.
- TAB. NOTE 176 VALENTOVÁ, TVRDÍK 2004, 561–563.
- TAB. NOTE 177 DVOŘÁK, FILIP 1946, 94.
- TAB. NOTE 178 Sites collected after KOŠTA, LUTOVSKÝ 2014, 121–126.
- TAB. NOTE 179 Under a mound with six graves in the extra-mural settlement of the hillfort in Zabuřany, a richly furnished female grave ('grave of the princess') was discovered, containing, among other things, one pair of two-layered gold gombíky with the closest analogy in Mikulčice near the second church, in grave 98 (more details on the issue of two-layered gombíky in SMETÁNKA 1994, 105–115).

TAB. 44 | Occurrence of gombíky in the Zalavár agglomeration.

Site ¹⁸¹	Type of site	Approximate dating	Number of graves	Number of graves with gombíky	Number of sheet metal decorated gombíky	Number of sheet metal undecorated gombíky	Glass gombíky	Gold/silver gombíky
Zalavár, Vársziget, Hadrianus Basilika ¹⁸²	Central site	9th–11th century	c. 1 500	≥ 5	≥ 9	-	≥ 4	1/8
Zalavár, Vársziget, Church of Virgin Mary ¹⁸³	Central site	9th–10th century	323	≥ 3	1?	2?	-	-/-
Zalavár, Récéskút, 'basilica' ¹⁸⁴	Hinterland of the centre/central site	9th century, 11th century, 14th–15th century	138	2	-	1	1	-/-
Zalaszabar, Borjúállás, wooden church ¹⁸⁵	Central site	9th century–first third of the 10th century	805	16	8	2	≥ 10	-/7
Zalaszabar, Dezsősziget ¹⁸⁶	Hinterland of the centre?	9th century	82	1	-	-	2	-/-
Zalavár, Rézes, Hosszúsziget ¹⁸⁷	Hinterland of the centre?	9th century	17	2?	-?	-?	2?	-/?
Zalavár, Mekenye, Vágásaljadülő ¹⁸⁸	Hinterland of the centre?	8th–9th century	2	-	-	-	-	-/-
Kesztehely, Fenékpuzsta ¹⁸⁹	Hinterland of the centre?	Second half of the 9th century–10th century	70	2	-	1	1	-/-
Kesztehely, Dobogó ¹⁹⁰	Countryside	9th century	7	-	-	-	-	-/-
Nagyrada ¹⁹¹	Hinterland of the centre?	9th century	8	-	-	-	-	-/-
Nagykanisza, botanical garden ¹⁹²	Countryside?	9th century	c. 100	-	-	-	-	-
Balatonberény ¹⁹³	Countryside?	9th century	73	-	-	-	-	-
Balatonszentgyörgy ¹⁹⁴		9th century	37	-	-	-	-	-
Garabonc-Ófalu ¹⁹⁵	Hinterland of the centre?	9th century	122	2	-	1	-	-/-
Alsórajk-Határi tábla ¹⁹⁶	Hinterland of the centre?	9th century	27	1	-	-	1	-/-
Zalavár Agglomeration, total	-	-	c. 3 427	≥ 34	≥ 18	≥ 7	≥ 21	≥ 1/15

TAB. NOTE 181 I concentrated on the surroundings of Zalavár, topographically based on the publication by BÉLA M. SZÓKE (1976).

TAB. NOTE 182 The graves located around Hadrianus Basilica have not yet been comprehensively published – I therefore thank B. M. Szóke for the verbal information that all gombíky from Vársziget have been published in separate studies; in richly furnished girl's grave 120/89 a pair of gilded silver gombíky with bosses covered with 'poppyseed' granulation; grave 65/2000 contained a pair of silver gombíky with stylised plant decoration (a misunderstanding of the decor?); in grave 1/2000 a pair of silver gombíky with a bird motif and an unpaired gold gombíky with vertical ribbing; in grave 10/99 there were three glass gombíky; at least a fourth glass button, displayed in the Hungarian National Museum, probably comes from the site; SZÓKE 2010, 9–52; 2014. Two silver (gilded?) gombíky were published from new research – one with soldered rings, the other with bosses and 'poppyseed' granulation; SZÓKE 2007, 413.

TAB. NOTE 183 The Church of the Virgin Mary and its surroundings were damaged by newer adjacent buildings (Arpád monastery, high medieval castle); at least 12 graves from the 9th century were found in its immediate vicinity by the excavation of B. M. SZÓKE (2010, 36), and apparently one sheet metal gombíky with soldered filigree wires appeared here (SZÓKE 2010, ABB. 17: 3); from the 1950s, 311 graves from the 9th–10th century are known east of the church, also belonging to the original church burial ground; male grave 318 contained a round copper alloy gombíky (undecorated?), male grave 95 a smaller copper alloy gombíky (undecorated?); SÓS 1963.

TAB. NOTE 184 Several construction phases of the church were identified – it is assumed that the oldest wooden structure belongs to the 9th century, the sacred and funerary functions of the area alternated several times, I list the number of graves from the oldest burial phase in the 9th century; SÓS 1969, 74, 101; SZÓKE 2014, 69–70. An undecorated copper alloy gombíky was found in grave 15/61 and a glass gombíky in grave 84; SÓS 1969, 51–103.

TAB. NOTE 185 On a former island in the River Zála, the remains of a nobleman's court with a church building and a richly furnished burial ground were discovered – the finds have not yet been published as a whole, but I obtained information about the gombíky thanks to the kindness of the author of the excavation, Dr. Róbert Müller, to whom I am highly grateful; from the cemetery, a pair of silver gombíky with full-surface granulation (without background rings) comes from grave 123, in grave 167 there was a gilded copper alloy gombíky decorated with chasing in a palmette motif, from grave 296 comes a pair of gilded silver gombíky with granulation dividing the gombíky with pearl wire in the meridian and in the parallel direction; from grave 352 comes an undecorated pair of gombíky in copper alloy, in grave 473 it was a silver gombíky decorated with granulation, and from grave 691 comes a pair of gombíky with bosses with triplets of triangles of 'poppyseed' granulation in gilded silver; glass gombíky come from graves: 318, 355, 439, 474, 500, 572, 592, 612, 618, 719.

TAB. NOTE 186 The burial ground is 650 m from the church building and the local Borjúállás funeral complex; in children's grave 81 were two glass gombíky; MÜLLER 1992, 285.

TAB. NOTE 187 Skeletons interpreted as part of a church burial ground, two published gombíky (glass?); SZÓKE 1976, 85; 2021, 430, ABB. 91: 29, 30.

TAB. NOTE 188 In 1964, two skeletons from the 8th–9th century were discovered; SZÓKE 1976, 85–91.

TAB. NOTE 189 An early medieval burial ground of a non-elite character was discovered in front of the southern wall of the Late Roman fortified settlement; children's grave 3 contained a glass gombíky, female grave 47 an undecorated copper alloy gombíky; SÓS 1961, 247–305.

TAB. NOTE 190 Graves from the 9th century were also discovered on the eastern edge of the larger Late Roman burial ground; SÁGI 1981, 120–121.

TAB. NOTE 191 Destroyed burial ground from the 9th century; eight graves saved; SZÓKE 1976, 86.

TAB. NOTE 192 Destroyed burial ground, supervision of excavation of c. 20 graves, not published in detail; SZÓKE 1976, 89.

TAB. NOTE 193 Most of the graves from the large 9th-century burial ground were destroyed during the construction of the railway – 52 graves saved in 1905, 21 graves excavated in 1957 – the older excavation also has Avar finds, the later excavation only includes the 9th-century inventory; SZÓKE 1976, 86; SÓS 1973, 144.

TAB. NOTE 194 Rescue excavation discovered 37 graves from the 9th century, not published in detail; SZÓKE 1976, 86.

TAB. NOTE 195 Two burial sites from the 9th century (I, II) were discovered on the sand dune area of the island; in children's grave I 47 an undecorated sheet metal gombíky; in children's grave II 38 there was a cast lead 'gombíky' with a high loop of the 'Moravian type'; SZÓKE 1992, 90–92.

TAB. NOTE 196 An atypical burial ground (also 9 other cremations at the site); in children's grave 21, a yellow-green glass gombíky was found in a context with beads; SZÓKE 1995, 98–100.

TAB. 45 | Overview of cemeteries of Great Moravian centres with elite gombíky. Highlighted are locations that have at least 50 graves.

Elite burial ground	% of graves with gombíky / number of graves, total	% of graves with elite types of gombíky / number of graves, total	% of graves with non-elite types of gombíky / number of graves, total	% of elite gombíky / number of gombíky, total	% of elite gombíky with chased decoration / number of gombíky, total	% of non-elite gombíky / number of gombíky, total	% indeterminate gombíky (in terms of eliteness) / number of gombíky, total	% gold gombíky / number of gombíky, total	% silver gombíky / number of gombíky, total
Mikulčice, church 2	15%	12%	3%	82%	49%	7%	-	6%	47%
Mikulčice, church 3 + 'Palace'	11%	9%	2%	90%	56%	4%	6%	11%	45%
Mikulčice, church 4	3%	3%	-	100%	100%	-	-	-	67%
Mikulčice, church 11	11%	7%	3%	67%	42%	25%	8%	-	8%
Mikulčice, church 12	6%	2%	4%	50%	38%	38%	12%	-	13%
Mikulčice, church 6	8%	7%	1%	97%	63%	3%	-	-	33%
Mikulčice, church 7	13%	6%	-	67%	67%	-	33%	-	100%
Mikulčice, church 8 (1 grave)	4%	-	-	25%	-	75%	-	-	-
Mikulčice, church 9	12%	3%	5%	30%	10%	60%	10%	-	30%
Mikulčice, Kostelisko	7%	3%	4%	52%	34%	36%	12%	-	26%
Mikulčice, Klášteřisko	3%	1%	2%	26%	27%	74%	-	-	13%
Kopčany, Kačenáreň	2%	1%	-	50%	50%	-	50%	-	50%
Kopčany, Church of Saint Margaret	14%	14%	-	100%	100%	-	-	-	-
Mikulčice, Panské	9%	5% ¹⁹⁷	9% ¹⁹⁸	44%	30%	56%	-	-	7%
Prušánky I	4%	>1%	>2%	15%	15%	85%	-	-	-
Prušánky II	2%	<1%	<2%	25%	-	75%	-	-	13%
Skalica, Kopečnica	5%	3%	2%	73%	73%	27%	-	-	-
Staré Město, Na Valách	6%	4%	2%	70%	45%	24%	6%	9%	40%
Staré Město, Špitálky, kostel	22%	20%	2%	88%	47%	6%	6%	18%	59%
Uherské Hradiště, Sady	15%	12%	3%	81%	42%	19%	-	23%	34%
Uherské Hradiště, Ostrov sv. Jiří	14%	14%	-	100%	-	-	-	-	-
Modrá	4%	2%	2%	50%	-	50%	-	-	50%
Břeclav-Pohansko, first church + cemetery II + isolated graves	8%	6%	2%	85%	59%	15%	-	6%	38%
Břeclav-Pohansko, second church	4%	1%	3%	36%	36%	64%	-	-	-

TAB. NOTE 197 Combinations of elite and non-elite gombíky appear in graves 61 and 78 (the percentages of the graves therefore do not add up to the total).

TAB. NOTE 198 *Ibid.*

TAB. 46 | Church 3 - graves with gombíky and their vertical stratigraphic relationships and superpositions.
(Table continues on next page.)

ID of grave with gombíky	Depth of grave	Vertical stratigraphy over grave with gombíky	Vertical stratigraphy under grave with gombíky
146	35 cm	-	-
164	60-65 cm	-	-
170	50 cm	-	-
216	60 cm (?)	Grave 215 (knife)	-
240	75 cm	Destruction layer of stones and mortar, grave 248	-
250	100 cm	Destruction floe	-
290	110 cm	-	-
300	135 cm	Grave 245 (finds, see below)	-
318	80 cm (north aisle)	Stone slabs with mortar	Feature 105
328	130 cm	-	Grave 345 (without finds)
343	50 cm (lined with stones)	-	Feature 110
349	85 cm	-	In the backfill of feature 100
364	135 cm (apparently incorrect data)	-	Grave 530 (likely) (iron object)
380	200 cm (central nave)	Cast mortar floors	-
390	70-120 cm (skull-legs)	-	Edge of the ditch
396	130 cm (bottom layer of graves)	-	-
398	80 cm	-	Grave 553 (finds, see below)
424	100 cm	-	-
425	120 cm	-	-
427	110 cm	-	In the backfill of feature 115
431	90 cm	Grave 251 (finds, see below), grave 305 (spindle whorl)	Grave 470 (finds, see below)
437	75 cm	Grave 305 (grave 437 damaged during its excavation) (spindle whorl)	Grave 470 (finds, see below)
440	110 cm	Grave 439 (finds, see below)	-
452	90 cm	x (60 cm from grave 451, 4 cm above)	-
454	110 cm	Directly next to grave 249, which is 10-20 cm above (knife)	Grave 501 (finds, see below)
465	150 cm	Grave 385 (extends below its base) (without finds)	-
469	140 cm	Grave 459 (finds, see below)	In the backfill of feature 131
470	120 cm (apparently contemporary with grave 471)	Grave 437 (finds, see below), grave 305 (spindle whorl), grave 431 (finds, see below)	-
471	120 cm (apparently contemporary with grave 470)	-	-
472	80 cm	Grave 257 (2 indeterminable iron objects)	Grave 552 (?) (finds, see below)
473	90 cm (lined with stones)	-	-
478	140 cm	-	-
490	195 cm (narthex)	Wall of the narthex (?)	-
491	80 cm	-	Grave 492 (without finds), 548 (finds, see below)
498	145 cm (apparently contemporary with grave 499)	-	-
504	105 cm	Grave 503 (without finds)	-
505	150 cm	Grave 481 (without finds)	apparently damaged grave 511 (finds, see below)
508	135 cm	-	In the backfill of feature 134
510	170 cm (the deepest grave in the group)	-	-
512	120 cm	-	Edge of ditch backfill (feature 135)
522C	125-140 cm	-	Feature 141
525	110-120 cm	Grave 524 (without finds)	-

ID of grave with gombiky	Depth of grave	Vertical stratigraphy over grave with gombiky	Vertical stratigraphy under grave with gombiky
531	140 cm	-	-
540	140 cm	Grave 464 (finds, see below)	-
544	80-85 cm (legs - skull) (south aisle)	Compact mortar block	-
549	120 cm	-	-
550	120 cm (in a group of disturbed graves south of the apse of church 3)	-	-
553	145 cm	Grave 398 (finds, see below)	Apparently disturbed grave 511 (finds, see below)
557	95 cm (damaged by an animal burrow)	-	Damaged grave 519 (bones set aside) (without finds)
567	165 cm	-	-
580	170 cm (central nave)	Red plastered wall, backfill under the negative of the inner dividing wall of the nave	-
586	130-140 cm (skull - legs)	-	Feature 162
590	170 cm	Graves 372, 394 (both without finds)	-
625	40 cm	-	-
662	95 cm	-	Grave 664 (finds, see below)
675	80 cm	-	-
987	105 cm (lined with stones)	-	Feature 715
988	65 cm	-	Grave 989 (?) (without finds)
1116	-	-	In the backfill of the ditch (Feature 663)
1182	144 cm	-	The backfill of feature 167 (a groove in the imagined line of the wall between the narthex and the atrium)

TAB. 47 | Overview of superpositions and grave goods in graves with gombíky (Mikulčice-Kopčany agglomeration, church 3) (Table and notes continue on next pages.).

ID of grave with gombíky	Buried individual - sex/gender and age-at-death	Type of gombík	Other finds in grave with gombík/y	Later grave (OVER)	Older grave (UNDER)
146	1-4 years	Not known (not extant)	A fragment of 'bronze'; a fragment of a knife	-	-
164	M, 20-29 years	A fragment of a gombík with chased decoration from silver sheet metal	An iron stick	-	-
170	5-9 years	A pair of polyhedral gilded copper alloy gombíky with chased anthropomorphic ornament	Two boar tusks?	-	-
216	15-19 years	A pair of large silver gombíky with chased plant ornament and blue glass inlays; other heavy gilded silver gombík in the shape of a double quadrilateral pyramid decorated with triangles from 'poppyseed' granulation	Knife	-	-
240	F?, 50-60?	A silver gombík with full-surface granulation	A pair of golden earrings with four baskets; two golden earrings with double sided grapes; a knife	Grave 248 (M?, 20-29): cast gilded copper alloy buckle without a prong; solid relief cast gilded copper alloy strap end with human figure engraving on reverse; spurs with three rivets on a horizontal groove on the end plate; a buckle	-
250	?, 20-29 years	Silver gombík with chased decoration (?) in fragments	A pair of golden earrings with nine baskets; four silver gilded earrings with two-sided grape; other golden earring with grape; one silver earring with knob; a knife	-	-
290	1-4 years	A pair of gilded copper alloy gombíky with chased plant decoration of a palmetto motif in cordate meander scheme	Copper wire from an earring	-	-
300	15-19 years	Small golden gombík decorated with 'poppyseed' granulation in form of triangles in six vertical fields	Bearded axe; 3(?) knives; fittings of a pyxis; a bucket; an iron buckle	Grave 245 (M, 30-59 years): iron spurs with pentagonal plates? with three rivets on a horizontal groove on the end plate, decorated with a copper-inlaid trefoil; iron nails; skate-like trowel	-

Grave with gombíky: Number/ information	Dateable finds	Time level (church 3)	Objective assessment	Comment
146	-	-	x	
164	-	-	x	
170	-	-	x	
216	-	-	x	
240	OVER: metal-strip spurs H240: -	Stratigraphy: -1/1 Finds: 0/1 Total: -1/3	No conclusion	Earrings with four baskets appear from earlier Great Moravian horizon, as well as gombíky with full-surface granulation
250	-	-	x	
290	-	-	x	
300	OVER: Spurs with rivets on a horizontal groove on the end plate H300: -	Stratigraphy: -1/1 Finds: 0/1 Total: -1/3	No conclusion	

ID of grave with gombíky	Buried individual - sex/gender and age-at-death	Type of gombík	Other finds in grave with gombík/y	Later grave (OVER)	Older grave (UNDER)
318	?, ?	A pair of gilded silver gombíky, olive-shaped, covered with full-surface granulation on underlays, at the lower pole blue glass inlay; trio of gold polyhedral gombíky decorated with chasing, coarse granulation and blue glass inlays	Trio of golden earrings with double-sided asymmetric grape and with lower arch decorated with granulation and pearl wire	-	-
328	?, 20-29	Three large silver gombíky with chased plant decoration of palmetto motif in cordate meander scheme; two are paired, the third is paired with gombík from grave 343	Four golden earrings with four baskets; three golden earrings with seven beads and triangles of 'poppy-seed' granulation; a knife	-	Grave 345 (M, 30-59 years): without finds
343	1-4 years	A large silver gombík with chased plant decoration of palmetto motif in cordate meander scheme, paired with gombík from grave 328	-	-	-
349	1-4 years	A pair of large silver gombíky with chased plant decoration of palmetto motif in arcade scheme	-	-	-
364	?, ?	A pair of gombíky from gilded copper alloy of elongated shape with smooth surface, five granules around the perimeter and one granule at the lower pole	16 cross-segmented glass beads; three simple beads; three silver grape earrings; a knife; gilded copper alloy bead	-	Grave 530 (? , 1-4 years): without finds Grave 564 (? , ?): set of buckles, strap-slides and strap ends of calf straps; set of iron spurs with three rivets on a horizontal groove on the end plate, with buckles, strap-slides and strap ends
380	Adult	Golden gombík with chased plant decoration of palmetto motifs	Gold plate; iron bucket with bird; gilded silver buckles and strap ends of calf straps; knife/steel plate; a flint; coffin clinches and fittings	-	-
390	M, 30-59 years	Silver gombík with bosses (?) (in fragments)	Silver buckle without a prong, silver strap end with filigree decoration and two gems on the obverse and with the figure of an orantus on the reverse, three clasps in the shape of a pair of birds; strap-slide (?) with a zoomorphic motif; a pair of small strap ends and buckles; a bucket; spring scissors	-	-

Grave with gombíky: Number/ information	Dateable finds	Time level (church 3)	Objective assessment	Comment
318	-	-	×	Analogies: grave 498 from Mikulčice; grave 205 from Pohansko near Břeclav-Pohansko, first church
328	H328: earrings with seven beads and 'poppyseed' granulation ¹⁹⁹ UNDER: -	Stratigraphy: +1/1 Finds: +1/1 Total: +1/1	Probably later	Paired gombík in grave 343 on the other side of the cemetery near church 3 - without other finds
343	-	-	×	Paired with gombík from grave 328 on the other side of the cemetery near church 3 - based on dating of grave 328, it is also possible to classify grave 343 as probably later
349	-	-	×	
364	H364: - UNDER: grave 564 spurs with three rivets on a horizontal groove on the end plate	Stratigraphy: +2/2 Finds: +1/1 Total: +3/3	Probably later	
380	H380: buckles and end fittings UNDER: calf straps of Frankish provenance from the first half of the 9th century (Lennartson) ²⁰⁰	Stratigraphy: 0/0 Finds: - 1/1	Probably earlier	UNDER: calf straps with analogies in grave 1665 (Kostelisko)
390	-	-	×	

ID of grave with gombíky	Buried individual - sex/gender and age-at-death	Type of gombík	Other finds in grave with gombík/y	Later grave (OVER)	Older grave (UNDER)
396A	Child?	Five gombíky: a large silver gombík with chased palmetto motifs in an arcade scheme; a pair of gombíky from gilded copper alloy with palmetto motifs in arcades; a pair of gombíky from gilded copper alloy with a stylised palmetto motif in medallion scheme	Four silver earrings with double sided grapes; a knife	-	-
398	M, 30-59 years	A pair of gilded copper alloy gombíky decorated with stylised plant ornament	Spurs of parabolic shape with square plates and with three rivets on a horizontal groove on the end plate (spike length 2.7 cm); sherd from glass cup and sherds from yellow pottery vessel (pottery of ancient shapes) - uncertain if it is related to this grave	-	Grave 553 (M, adult): pair of polyhedral gold gombíky with chased decoration of a plant motif, coarse granulation and glass inlays; another silver oval gombík with plant ornament; iron belt fitting set (strap end, buckle); iron set of calf straps with silver tausia (strap ends, strap-slides); iron spurs with side rivets on plates (length of a spike 3.5 cm); arrow with wings; bearded axe; a bucket; steel plate; a razor; coffin fittings (?)
424	5-9 years	Silver gombík with 'poppyseed' granulation in form of small pyramids made from four granules, sheet metal frames originally held glass (?) inlays	Four silver earrings with a double-sided grape	-	-
425	Adult	Gold gombík with vertical ribbing	Two iron knives; iron sword of N type; iron spurs of unknown design	-	-
427	Adult	Four gombíky: a pair of large silver gombíky with chased plant decoration in net scheme; a pair of gombíky from gilded copper alloy with chased plant decoration in cordate meander scheme	Two knives	-	-
431	10-14 years	A fragment (loop) of unspecified silver gombík	Three irons (two in the form of tape, the third perhaps an anvil?); a knife	Grave 251 (1-4 years): stone lining; a knife; a vessel; an antler game piece with an archer/animal motif also associated with the grave, but the identity of the find is unclear ²⁰¹ Grave 305 (F, 30-59 years): spindle whorl	-

Grave with gombíky: Number/ information	Dateable finds	Time level (church 3)	Objective assessment	Comment
396A	-	-	×	Deep graves south of church 3, but closely adjacent (lower situated) male grave 396 contained spurs with three rivets on a horizontal groove on the end plate
398	H398: spurs with three rivets on a horizontal groove on the end plate UNDER: spurs with side rivets	Stratigraphy: +1/1 Finds: +1/2 Total: +2/3	Probably later	
424	-	-	×	
425	-	-	×	Based on the analysis of the gombíky with vertical ribbing, the gold specimens appear to be representatives of the earlier horizon
427	-	-	×	One pair has analogous decoration of the network scheme to the gombíky in grave 1314 from Kostelisko (here with bird motifs, together with earrings with beads decorated with full-surface granulation - type C)
431	OVER: - H431: -	Stratigraphy: - 2/2 Finds: 0/0 Total: - 2/2	No conclusion	

ID of grave with gombíky	Buried individual - sex/gender and age-at-death	Type of gombík	Other finds in grave with gombík/y	Later grave (OVER)	Older grave (UNDER)
437	Child	Silver gombík with 'poppyseed' granulation divided into six fields imitating with the layout of two-layered gombíky, the glass inlays or bosses (?) are missing	Iron spurs with silver tausia with three rivets on the horizontal groove on the end plate; buckles with strap-slides decorated with silver tausia; a knife; probably also bird-shaped clasps (not preserved)	Grave 305 (F, 30-59 years); spindle whorl	Grave 470 (F, adult): eight small gold earrings with a double-sided grape; a pair of gilded silver earring with 'poppyseed' granulation arranged in a zig-zag line; a gilded silver ring with a hemispherical bezel with three triplets of smaller glass inlays
440	10-14 years	A pair of gold gombíky with soldered filigree decoration of rings made from twisted wire	Gold earring with four baskets; heavily damaged silver bead earring with decorated upper arch; damaged silver earring with double-sided grape and decorated upper arch	Grave 439 (30-59 years); iron spurs with plates with side rivets decorated with yellow metal (length of spike 2.3 and 3 cm); oblong iron strap end; coffin fittings	-
452	5-9 years	Gombík with full-surface granulation with rings from smooth wire	-	-	-
454	5-9 years	Large silver gombík in fragments with chased plant decoration of palmetto motif in arcade scheme	Silver ring with conical bezel decorated with 'poppyseed' granulation combined with filigree; two iron knives; pointed bone	-	Grave 501 (M, adult): iron strap spurs without rivets; two D-shaped iron buckles
465	1-4 years	A pair of gombíky from gilded copper alloy with full-surface granulation on underlays from smooth wire	Two silver earrings with a double-sided grape	-	-
469	F, 60+ years	Silver gombík with chased plant decoration of palmetto motif in cordate meander (upper half)	Two gold earrings with double-sided grapes (one with pyramids of 'poppyseed' granulation); two knives	Grave 459 (F, adult): silver earring with four baskets and tihara-shaped bead with suspended (and broken off) decorative chains; two knives	-
470	F, adult	A pair of gilded silver gombíky with 'poppyseed' granulation arranged in zig-zag lines	Eight small gold earrings with a double-sided grape; a gilded silver ring with a hemispherical bezel with three triplets of smaller glass inlays	Grave 305 (F, 30-59 years): spindle-whorl Grave 437 (child): silver gombík with 'poppyseed' granulation divided into six decorative fields, dropped glass inlays or bosses (?); iron spurs with silver tausia with three rivets on the horizontal groove on the end plate; buckles with strap-slides decorated with silver tausia; a knife; probably also bird-shaped clasps (not preserved) Grave 431 (10-14 years): a fragment of a silver button (loop); three pieces of iron (two in the form of a band, the third perhaps an anvil?); a knife	-

Grave with gombíky: Number/information	Dateable finds	Time level (church 3)	Objective assessment	Comment
437	OVER: - H437: spurs with three rivets on a horizontal groove on the end plate UNDER: zig-zag motif on the gombík with an analogy in graves 24/48 and 25/48 at the Na Valách cemetery ²⁰²	Stratigraphy: 0/2 Finds: +1/1 Total: +1/3	Probably later	
440	OVER: spurs with side rivets H440: earrings with granulated upper arc	Stratigraphy: -1/1 Finds: -2/2 Total: -3/3	Probably earlier	
452	-	-	×	
454	H454: - UNDER: metal strip spurs	Stratigraphy: +1/1 Finds: +1/1 Total: +2/2	Probably later	
465	-	-	×	
469	OVER: - H469: -	Stratigraphy: -1/1 Finds: 0/0 Total: -1/1	No conclusion	
470	OVER: spurs with rivets on a horizontal groove on the end plate H470: - ²⁰³	Stratigraphy: -3/2 Finds: 0/1 Total: -3/3	Probably earlier	Apparently contemporary with grave 471, classified as probably later - the discrepancy may be caused by distortion due to the influence of a multiple stratigraphy created in rapid succession

ID of grave with gombíky	Buried individual - sex/gender and age-at-death	Type of gombík	Other finds in grave with gombík/y	Later grave (OVER)	Older grave (UNDER)
471	1-4 years	A pair of large pear-shaped silver gombíky with chased plant ornament of a palmetto motif in arcade scheme	Metal-strips spurs with three rivets; two buckles with strap-slides and strap-ends	-	-
472	child	Fragments of a large silver gombík with a cordate meander; a pair of glass gombíky; a gombík (pendant) made of copper sheet with a relief strip at the junction of the hemispheres	A pair of silver earrings with double-sided grape; two knives; copper alloy fragments in leather; a bucket	Grave 257 (5-9 years): a fragment of an iron bar; another iron object (strap-slide?)	Grave 552 (adult): iron spurs with simple plate with two rivets; bearded axe; two knives
473	1-4 years	Gilded copper alloy gombík with chased ornament of a stylised palmetto motif in a cordate meander scheme; glass gombík of slightly greenish glass with iron loop	-	-	-
478	Adult	Pair of gilded copper alloy gombíky with rosette in medallion; solitaire silver plated copper alloy gombík with chased plant decoration palmetto motif in arcade scheme	Coffin staples	-	-
490	Adult	Gold gombík with chased plant decoration of a palmetto motif in arcade scheme	Spurs with simple plate and two side rivets (length of spike 3.8 cm) decorated with silver tausia; silver buckles, strap-slides and strap-ends; knives; an awl; iron fragments; coffin fittings	-	-
491	1-4 years	A pair of gilded silver gombíky divided into 16 fields decorated with 'poppyseed' granulation in an hourglass motif	-	-	Grave 492 (M, 30-59 years): without finds; also above grave 496 (5-9 years): fragments of a silver earring with a double-sided grape (?) Grave 548 (M, 30-59 years): iron spurs with simple plates with one rivet on each side of the plate; a knife; an iron plate (?); a flint; bearded axe; a bucket
498	1-4 years	A pair of gilded copper alloy gombíky of a polyhedral shape with coarse granulation and a glass blue circular inlay on the lower pole, on the surface remains of textile eyelets	A knife; coffin fittings	-	-

Grave with gombíky: Number/ information	Dateable finds	Time level (church 3)	Objective assessment	Comment
471	H471: metal-strip spurs	Stratigraphy: 0/0 Finds: +1/1 Total: +1/1	Probably later	Apparently contemporaneous with grave 470 - the dating discrepancy may be due to distortion due to the rapid development of the multiple stratigraphy of grave 470
472	OVER: - H472: - UNDER: iron spurs with simple plate with two rivets; bearded axe with long spikes	Stratigraphy: 0/2 Finds: 0/2 Total: 0/4	No conclusion	
473	-	-	x	
478	-	-	x	
490	H490: iron spurs with simple plate with two rivets	Stratigraphy: 0/0 Finds: -1/1 Total: -1/1	Probably earlier	
491	H491: - UNDER: iron spurs with simple plate with two rivets, bearded axe with long spikes	Stratigraphy: +2/2 Finds: 0/2 Total: +2/4	No conclusion	
498	-	-	x	Deposited in the same depth and stratigraphic position with grave 499 (?) (metal strip spurs, UNDER the grave 480 with coin)

ID of grave with gombíky	Buried individual - sex/gender and age-at-death	Type of gombík	Other finds in grave with gombíky	Later grave (OVER)	Older grave (UNDER)
504	1-4 years	A pair of gilded copper alloy gombíky with vertical ribbing	Silver earring with double-sided grape, twisted wire and S-shaped loop; fragments of silver column earring with beads with 'poppy-seed' granulation	-	-
505	F, adult	A pair of gold two-layered gombíky; a pair of silver gombíky with bosses and 'poppyseed' granulation; a pair of silver gombíky with full surface granulation divided by beaded wires vertically and horizontally into eight fields	Ornament (strap-end) in the shape of a book; silver earring with four smaller beads and tiara-shaped bead with chains; fragments of similar earring; gold earring with ten beads; gold earring with six baskets; gold earring with four beads; four knives; fragments of a bronze	Grave 481 (1-4 years): without finds	Grave 511 (child): a fragment of an earring made of a gilded copper alloy (with a one-sided grape or pendant); min. 64 disc-shaped beads - unclear number with fused thread (not preserved); six biconical (olive-shaped) and five cylindrical beads with fused thread; a knife
508	Adult	Two pairs of gombíky: first pair from gilded copper alloy with chased bird motifs in medallion scheme; second pair with stylised chased plant and animal motif in arcade scheme	Metal-strips spurs; strap slides; two knives	-	-
510	F, 20-29 years	Unidentified fragments of a gombík	Two silver earrings with grapes; two knives; a bucket	-	-
512	Adult	A pair of silver gombíky with bosses in fragments; one other solitaire undecorated gombík from silver sheet metal	A pair of gold earrings with four baskets; fragments of silver earrings; silver wires partly braided into a cord; a knife	-	-
522C	Child	Fragments of two silver (unpaired?) gombíky with chased plant ornament	A pair of silver earrings with large one-sided grapes (two other children's burials with additional grave goods: a bucket; two vessels; lead ingot, amber coral; two knives)	-	-
525	5-9 years	Fragments of silver gombík with chased plant decoration of palmetto motif	A wire from copper alloy	Grave 524 (? , newborn?): without finds	-
531	1-4 years	A pair of gilded copper alloy gombíky with the junction of the hemispheres covered with pearl wire and with the lower hemisphere decorated with filigree, granulation and (dropped out) glass inlay	A knife	-	-

Grave with gombíky: Number/ information	Dateable finds	Time level (church 3)	Objective assessment	Comment
504	-	-	x	
505	OVER: - H505: earrings with four beads - D type; earrings with upper arc decorated with beads UNDER: beads with fused thread ²⁰⁴	Stratigraphy: 0/2 Finds: -2/2 Total: -2/4	Probably earlier	
508	H508: metal strip spurs	Stratigraphy: 0/0 Finds: +1/1 Total: +1/1	Probably later	
510	-	-	x	
512	-	-	x	
522C	-	-	x	Finding a lead ingot in a parallel burial
525	OVER: - H525: -	Stratigraphy: -1/1 Finds: 0/0 Total: -1/1	No conclusion	
531	-	-	x	

ID of grave with gombíky	Buried individual - sex/gender and age-at-death	Type of gombík	Other finds in grave with gombík/y	Later grave (OVER)	Older grave (UNDER)
540	5-9 years	Small fragments of silver gombík with coarse granulation	An axe; two knives; a pair of iron spurs with two lines of side rivets; fittings of spurs; a bucket	Grave 464 (M, 30-59 years): spurs with three rivets on a horizontal groove on the end plate; a knife; a folding knife	-
544	M, 20-29	A gombík from gilded copper alloy decorated with spiral ornament (?)	A bucket; an awl; coffin fittings	-	-
549	1-4 years	A glass gombík with iron loop		-	-
550	1-4 years	Two unpaired gombíky: fragments of a silver gombík with a chased bird and a cross on the lower pole; a large gilded copper alloy gombík with a chased stylised plant motif (a pair in grave 420b at the graveyard near church 2)	Silver bead with bosses and 'poppyseed' granulation; gold crescent-shaped pendant with 'poppyseed' granulation (in rhombuses) and filigree; three knives; a pair of simple wire earrings; a fragment of an earring with a simple knot	-	-
553	Adult	A pair of gold polyhedral gombíky with chased lily motif, coarse granulation and glass inlay; another silver oval gombík with chased plant ornament	An iron set of belt fittings (strap-end, buckle); iron set of calf-straps fittings with silver tausia (strap-ends, strap-slides); iron spurs with side rivets on plates (length of the spike 3.5 cm); rhombic arrow; bearded axe; bucket, steel-plate; razor; coffin fittings	Grave 398 (M, 30-59 years): gilded copper alloy gombík with chased plant stylised ornament; spurs of parabolic shape with square plates and with three rivets on a horizontal groove on the end plate (length of spike 2.7 cm); sherd from glass cup and sherds from yellow pottery vessel (pottery of ancient shapes) - uncertain if it is related to this grave	Grave 511 (child): a fragment of an earring made of a gilded copper alloy (with a one-sided grape or pendant); min. 64 disc-shaped beads - unclear number with fused thread (not preserved); six biconical (olive-shaped) and five cylindrical beads with fused thread; a knife
557	10-14 years	A pair of gombíky from gilded copper alloy with chased plant decoration with palmetto motif in cordate meander scheme	Unusual spur with small tongue-shaped plate with two rivets underneath - uncertain if it is related to this grave	-	Grave 519 (F, 30-59 years): without finds
567	F, 30-59 years	Two unpaired gombíky: very small silver gombík with full-surface granulation on underlays; gilded copper alloy gombík with chased plant decoration of palmetto motif in arcade scheme	Three gold earrings with two-sided grapes; fragments of silver earrings with grapes; a knife	-	-
580	Adult	Gold gombík with vertical ribbing	Sword (type is not definable); buckle, strap-slide and strap-end of a belt; a sax; an axe; a knife; a bucket; razor; steel plate; flint; coffin fittings	-	-

Grave with gombíky: Number/ information	Dateable finds	Time level (church 3)	Objective assessment	Comment
540	OVER: spurs with rivets on a horizontal groove on the end plate H540: spurs with side rivets	Stratigraphy: -1/1 Finds: -1/2 Total: -2/3	Probably earlier	
544	-	-	×	
549	-	-	×	
550	-	-	×	Paired with a large gilded copper alloy gombík found in grave 420b (church 2) - here together with an earring with four beads with granulated pattern (variant B, D)
553	OVER: spurs with rivets on a horizontal groove on the end plate H553: spurs with side rivets UNDER: beads with fused thread ²⁰⁶	Stratigraphy: 0/2 Finds: -1/3 Total: -1/5	Probably earlier	
557	H557: - UNDER: -	Stratigraphy: +1/1 Finds: 0/0 Total: +1/1	No conclusion	
567	-	-	Not evaluated	
580	H580: a sword of archaic construction (without upper hilt) ²⁰⁵	Stratigraphy: 0/0 Finds: -1/1 Total: -1/1	No conclusion	Based on the analysis of the gombíky with vertical ribbing, the gold specimens appear to be representatives of the earlier horizon

ID of grave with gombíky	Buried individual - sex/gender and age-at-death	Type of gombík	Other finds in grave with gombík/y	Later grave (OVER)	Older grave (UNDER)
586	Child	Small fragments of a pair of silver gombíky, originally with 'poppyseed' granulation ornament	Fragments of gilded silver earrings with granulated beads (typologically unspecified) and possibly grape earrings; two iron knives; coffin fittings	-	-
590	Child	A pair of silver gombíky with full-surface granulation on underlays	A strap-end; unspecified iron objects; a bucket; coffin staples	-	-
625	F, 20-29 years	A pair of gilded copper alloy gombíky with a chased palmetto motif in a cordate meander	Sheet metal iron fittings	-	-
662	1-4 years	A pair of extremely high-quality large gombíky made of gilded copper alloy with the motif of chased rosettes created using the repoussé technique; a non-preserved fragment of a silver gombík with chased plant ornament	Silver earring with two-sided asymmetric grape	-	Grave 664 (M, 60+ years): a pair of iron spurs with three rivets on a horizontal groove on the end plate; a knife; a razor; iron stamen
675	15-19 years	Silver gombík with chased plant ornament of stylised palmetto motif in arcade scheme, the leaves of palmetto end with bird heads	-	-	-
987	F, 30-59 years	A pair of gilded copper alloy gombíky with a stylised plant motif in medallions with incised edges	Graphite vessel; two knives; two disk-shaped, one barrel-shaped, one cylindrical glass bead; iron tube bead?	-	-
988	10-14 years	A pair of gombíky from gilded copper alloy with chased decoration of a stylised palmetto motif in arcade scheme	-	-	-
1116	1-4 years	Undecorated gombík from gilded copper alloy (?) (unpreserved)	-	-	-
1182	F, 30-59 years	A pair of gilded copper alloy gombíky with simple geometrical decoration	Fragments of eight silver earrings with originally six beads with 'poppyseed' granulation arranged in rhombuses forming a cross motif; cross-sectioned bead; miniature cast eye-shaped pendant; small iron point	-	-

Grave with gombíky: Number/ information	Dateable finds	Time level (church 3)	Objective assessment	Comment
586	-	-	Not evaluated	
590	-	-	Not evaluated	
625	-	-	Not evaluated	
662	H662: - UNDER: spurs with rivets on a horizontal groove on the end plate	Stratigraphy: +1/1 Finds: +1/1 Total: +2/2	Probably later	
675	-	-	Not evaluated	
987	H987: a vessel with graphite²⁰⁷	Stratigraphy: 0/0 Finds: +1/1 Total: +1/1	Probably later	It is not possible to comment further on the dating of the beads - only the drawings in the inventory have sur- vived (apparently, they can be classified in general in the category of polychrome ²⁰⁸)
988	-	-	Not evaluated	
1116	-	-	Not evaluated	
1182	H1182: earrings with six beads (?)²⁰⁹	Stratigraphy: 0/0 Finds: +1/1 Total: +1/1	Probably later	

-
- TAB. NOTE 199 Š. Ungermaⁿ included them with regard to their occurrence in the stratigraphically lowest graves at the Na Valách cemetery and also on the basis of decoration similar to that of the earrings with four beads, among the jewellery appearing already from the earlier Great Moravian horizon (UNGERMAN 2005, 711). In contrast, L. Galuška dates them primarily based on the context of graves 15/48 and 251/49 to the second half of the 9th century or to the beginning of the 10th century (GALUŠKA 2013, 244–249). In both graves, earrings with seven beads and ‘poppyseed’ granulation were accompanied by other artefacts with four beads and full-surface granulation on underlays, which would correspond to this later dating (UNGERMAN 2021, 44–60). I believe that we can also date these Mikulčice specimens to a later burial horizon.
- TAB. NOTE 200 UNGERMAN 2020, 332.
- TAB. NOTE 201 KLANICA ET AL. 2019, 31.
- TAB. NOTE 202 UNGERMAN 2017, 40
- TAB. NOTE 203 The zig-zag motif on the gombík is analogous to the metal beads from graves 24/48 and 25/48 from the Na Valách cemetery in Staré Město (UNGERMAN 2017, 40).
- TAB. NOTE 204 UNGERMAN 2005, 714, 740–741.
- TAB. NOTE 205 KOŠTA 2005, 172.
- TAB. NOTE 206 UNGERMAN 2005, 714, 740–741.
- TAB. NOTE 207 POLÁČEK 1999, 740–759.
- TAB. NOTE 208 STAŠŠÍKOVÁ-ŠTUKOVSKÁ, UNGERMAN 2009, 146–147.
- TAB. NOTE 209 See note 199 (in the case of grave 1182, these were originally six-bead earrings, but in my opinion the chronology is similar).

8. Catalogue

8.1 CATALOGUE INTRODUCTION

The catalogue presents gombíky from the acropolis and extra-mural settlement of the Mikulčice-Valy stronghold, i.e. a total of 375 artefacts - 326 grave finds and 49 settlement finds. The gombíky are arranged in the catalogue by individual cemeteries and by the grave numbers within these specific burial grounds, first from acropolis (church 2, church 3, 'palace', church 4, hypothetical churches 11 and 12), subsequently from extra-mural settlement (church 6, church 7, church 8, church 9, Klášteřisko, Kostelisko). Finds made outside of grave units are listed at the end of the catalogue.

Preserved artefacts are accompanied by a current side-view photograph, a photograph from above (view of the upper hemisphere with the loop) and from below (view of the lower hemisphere without the loop). Those without a colour photograph are artefacts that did not survive the fire at the research base in Mikulčice in 2007. In these cases, the current photograph was replaced by a preserved historical image or drawing. Some finds are accompanied only by a simple sketch in the inventory book or by a drawing from a publication, while no illustrations are available for 25 unpreserved gombíky, only a written description. Unless otherwise stated, the photograph or drawing is displayed approximately in 1 : 1 scale (look at the given dimensions).

The descriptive part of the catalogue entries is comprised of several pieces of information numbered in the following order:

1. Basic find identification: inventory number, grave number (or square for non-grave finds), cemetery designation (if the artefact is a grave find); information on the state of the artefact's preservation and illustrations.
2. Information on potential paired artefacts, total number of gombíky in the grave and information about the situation of the gombíky in the grave.
3. Dimensions (usually the gombík's height with the loop × height without the loop × maximum diameter) and material.
4. Typological classification of body construction (in connection with Fig. 4, 5 in the book) and type of decoration (glass, iron and lead gombíky were not further analysed).
5. Basic anthropological characteristics - age-at-death and sex - of the individual buried with the gombíky (if relevant, gender information is also included, linked to the gender specific archaeological finds).
6. Literature and sources.

The colour photographs in the catalogue are by Jiří Foltýn and Matouš Bárta. The historical black and white photographs are held in the archive of the Institute of Archaeology of the Czech Academy of Sciences in Brno and are gradually being made available online in the AIS ČR (<https://digiarchiv.aiscr.cz>) digital archive of documents; archives of metadata hold additional information on the individual authors of historical photographs. The literature is selective and refers to the first publication or a review (catalogue) or/and most detailed publication of individual gombíky. The sources include a reference to the Mikulčice inventory books, which were used as an information platform and a source of most drawing documentation in the catalogue (unless otherwise stated). The inventory books are available in the internal archive of the Research Centre for Slavonic and Medieval Archaeology, Czech Academy of Sciences, Institute of Archaeology, Čechyňská 363/19, Brno, 602 00, Czech Republic. Please send requests to access the archive to the author of this book (krupickova@arub.cz).

8.2 CATALOGUE TEXT

CHURCH 2

- G 1
1. Inv. No. 4428/57; Church 2, Grave 1
 2. Paired with Inv. No. 4504/57?; total number of gombíky in grave: 2; situation: in the fill of the grave
 3. Dimensions: 20.9 × 15.3 × 16.7 mm; material: silver
 4. Sphere: a; attachment system: a; type: chased decoration, ornament: plant, scheme: arcade
 5. Sex (anthropologically): female; age-at-death: juvenis
 6. Poulík 1957, 292, 366, obr. 74: 3; inventory book 1957 (MInv 57-2_0433)



- G 1
1. Inv. No. 4504/57; Church 2, Grave 1; not preserved
 2. Paired with Inv. No. 4428/57?; total number of gombíky in grave: 2; situation: in the fill of the grave
 3. Dimensions: -; material: silver
 4. Sphere: -; attachment system: -; type: -
 5. Sex (anthropologically): female; age-at-death: juvenis
 6. Poulík 1957, 292, 366; inventory book 1957 (MInv 57-2_0460)



- G 4
1. Inv. No. 4505/57; Church 2, Grave 4; not preserved
 2. Non-paired; total number of gombíky in grave: 1; situation: in the torso area
 3. Dimensions: -; material: silver
 4. Sphere: -; attachment system: -; type: -
 5. Sex (anthropologically): -; age-at-death: -
 6. Poulík 1957, 366; inventory book 1957 (MInv 57-2_0460)



- G 44
1. Inv. No. 4430/57; Church 2, Grave 44
 2. Paired with Inv. No. 4431/57; total number of gombíky in grave: 2; situation: under the lower jaw
 3. Dimensions: 29.3 × 21.8 × 23.3 mm; material: gilded copper alloy
 4. Sphere: a; attachment system: a; type: chased decoration, ornament: plant, scheme: cordate meander
 5. Sex (anthropologically): male; age-at-death: maturus I
 6. Poulík 1957, 298, 334, 366-367, obr. 76; Kouril ed. 2014, 424; inventory book 1957 (MInv 57-2_0433)



- G 44
1. Inv. No. 4431/57; Church 2, Grave 44
 2. Paired with Inv. No. 4430/57; total number of gombíky in grave: 2; situation: further south from the right foot
 3. Dimensions: (loop is missing) × 21.6 × 23.5 mm; material: gilded copper alloy
 4. Sphere: a; attachment system: a?; type: chased decoration, ornament: plant, scheme: cordate meander
 5. Sex (anthropologically): male; age-at-death: maturus I
 6. Poulík 1957, 298, 366-367; inventory book 1957 (MInv 57-2_0434)



- G 50 **1. Inv. No. 4511/57; Church 2, Grave 50; not preserved**
 2. Non-paired; total number of gombíky in grave: 1; situation: near skull
 3. Dimensions: -; material: silver
 4. Sphere: -; attachment system: -; type: chased decoration, ornament: plant, scheme: net
 5. Sex (anthropologically): -; age-at-death: -
 6. Poulík 1957, 307, 367; inventory book 1957 (MInv 57-2_0462)



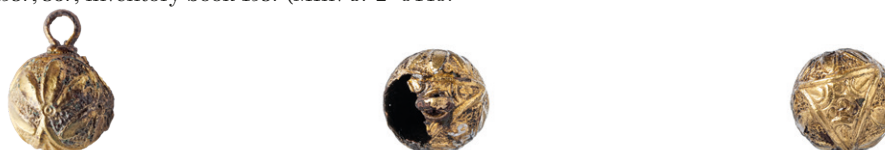
- G 51 **1. Inv. No. 4440/57; Church 2, Grave 51**
 2. Non-paired; total number of gombíky in grave: 1; situation: between the upper and lower jaw
 3. Dimensions: 17.7 × 12.2 × 13.1 mm; material: silver
 4. Sphere: a; attachment system: b; type: soldered decoration, ornament: with bosses
 5. Sex (anthropologically): female; age-at-death: senilis
 6. Poulík 1957, 299, 367, obr. 83: 6; Kouřil ed. 2014, 432; inventory book 1957 (MInv 57-2_0439)



- G 54 **1. Inv. No. 4443/57; Church 2, Grave 54**
 2. Paired with Inv. No. 4444/57; total number of gombíky in grave: 2; situation: under the lower jaw
 3. Dimensions: 19.1 × 13.3 × 14.2 mm; material: gilded copper alloy
 4. Sphere: a; attachment system: b; type: chased decoration, ornament: plant, scheme: unclassified
 5. Sex (anthropologically): -; age-at-death: infans I
 6. Poulík 1957, 367; Kouřil ed. 2014, 424; inventory book 1957 (MInv 57-2_0440)



- G 54 **1. Inv. No. 4444/57; Church 2, Grave 54**
 2. Paired with Inv. No. 4443/57; total number of gombíky in grave: 2; situation: 15 cm from the first gombík in the torso area
 3. Dimensions: 19.0 × 13.3 × 14.2 mm; material: gilded copper alloy
 4. Sphere: a; attachment system: b; type: chased decoration, ornament: plant, scheme: unclassified
 5. Sex (anthropologically): -; age-at-death: infans I
 6. Poulík 1957, 367; inventory book 1957 (MInv 57-2_0440)

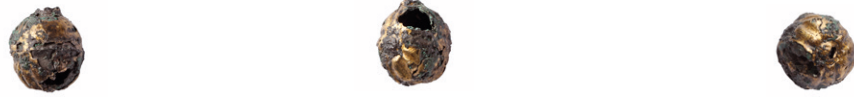


- G 64 **1. Inv. No. 4514/57; Church 2, Grave 64**
 2. Paired with Inv. No. 4447/57; total number of gombíky in grave: 4; situation: on both sides of the skull
 3. Dimensions: (loop damaged) × 14.3 × 14.2 mm; material: gilded copper alloy
 4. Sphere: a; attachment system: b; type: chased decoration, ornament: geometric, scheme: of eight fields
 5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: infans I
 6. Poulík 1957, 300, 367; inventory book 1957 (MInv 57-2_0463)



G 64

1. Inv. No. 4445/57; Church 2, Grave 64
2. Paired with Inv. No. 4446/57; total number of gombíky in grave: 4; situation: 10 cm east of the second pair of gombíky (away from the skull)
3. Dimensions: (loop damaged \times 11.1 \times 9.1 mm; material: gilded copper alloy
4. Sphere: a; attachment system: b; type: chased decoration, ornament: geometric, scheme: of eight fields
5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: infans I
6. Poulík 1957, 300, 367; inventory book 1957 (MInv 57-2_0440)



G 64

1. Inv. No. 4446/57; Church 2, Grave 64
2. Paired with Inv. No. 4445/57; total number of gombíky in grave: 4; situation: 10 cm east of the second pair of gombíky (away from the skull)
3. Dimensions: 16.7 \times 10.2 \times 9.3 mm; material: gilded copper alloy
4. Sphere: a; attachment system: b; type: chased decoration, ornament: geometric, scheme: of eight fields
5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: infans I
6. Poulík 1957, 300, 367, obr. 86: 5; inventory book 1957 (MInv 57-2_0441)



G 64

1. Inv. No. 4447/57; Church 2, Grave 64
2. Paired with Inv. No. 4514/57; total number of gombíky in grave: 4; situation: on both sides of the skull
3. Dimensions: 21.9 \times 14.0 \times 14.2 mm; material: gilded copper alloy
4. Sphere: a; attachment system: b; type: chased decoration, ornament: geometric, scheme: ornament of eight fields
5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: infans I
6. Poulík 1957, 300, 367; inventory book 1957 (MInv 57-2_0441)



G 65

1. Inv. No. 4448/57; Church 2, Grave 65
2. Paired with Inv. No. 4449/57; total number of gombíky in grave: 2; situation: in the torso area
3. Dimensions: 24.8 \times 18.8 \times 20.3 mm; material: gilded copper alloy
4. Sphere: a; attachment system: b; type: soldered decoration, ornament: full-surface granulation
5. Sex (anthropologically): female?; age-at-death: juvenis
6. Poulík 1957, 367; inventory book 1957 (MInv 57-2_0441)



- G 65
1. Inv. No. 4449/57; Church 2, Grave 65
 2. Paired with Inv. No. 4448/57; total number of gombíky in grave: 2; situation: in the torso area
 3. Dimensions: 25.3 × 19.1 × 21.1 mm; material: gilded copper alloy
 4. Sphere: a; attachment system: b; type: soldered decoration, ornament: full-surface granulation
 5. Sex (anthropologically): female?; age-at-death: juvenis
 6. Poulík 1957, 367; inventory book 1957 (MInv 57-2_0441)



- G 67
1. Inv. No. 4517/57; Church 2, Grave 67
 2. Non-paired; total number of gombíky in grave: 1; situation: on the skull
 3. Dimensions: 13.4 × 10.1 × 12.7 mm (partially estimated - damaged sphere); material: silver
 4. Sphere: a; attachment system: b; type: soldered decoration, ornament: with bosses
 5. Sex (anthropologically): female; age-at-death: senilis
 6. Poulík 1957, 367-368; inventory book 1957 (MInv 57-2_0463)



- G 71
1. Inv. No. 4450/57; Church 2, Grave 71
 2. Paired with Inv. No. 4451/57; total number of gombíky in grave: 2; situation: under the skull
 3. Dimensions: 11.4 × 7.8 × 8.7 mm; material: gold
 4. Sphere: a; attachment system: b; type: undecorated
 5. Sex (anthropologically): -; age-at-death: infans I
 6. Poulík 1957, 368, obr. 84: 1, 2; Kouřil ed. 2014, 420; inventory book 1957 (MInv 57-2_0442)



- G 71
1. Inv. No. 4451/57; Church 2, Grave 71
 2. Paired with Inv. No. 4450/57; total number of gombíky in grave: 2; situation: under the skull
 3. Dimensions: 11.2 × 7.4 × 8.0 mm; material: gold
 4. Sphere: a; attachment system: b; type: undecorated
 5. Sex (anthropologically): -; age-at-death: infans I
 6. Poulík 1957, 368, obr. 84: 1, 2; inventory book 1957 (MInv 57-2_0442)



- G 73
1. Inv. No. 4518/57; Church 2, Grave 73; not preserved, probably a rattle
 2. Non-paired; total number of gombíky in grave: 1; situation: on the chest near the right side of the spine
 3. Dimensions: -; material: iron
 4. Sphere: not analysed; attachment system: not analysed; type: not analysed
 5. Sex (anthropologically): -; age-at-death: infans I
 6. Poulík 1957, 368; inventory book 1957 (MInv 57-2_0464)



G 91

1. Inv. No. 4542/57; Church 2, Grave 91
2. Non-paired; total number of gombíky in grave: 1; situation: on the right shoulder
3. Dimensions: (loop damaged) × 19.9 × 18.2 mm; material: gilded copper alloy
4. Sphere: a; attachment system: b?; type: chased decoration, ornament: geometric, scheme: of eight fields
5. Sex (anthropologically): -; age-at-death: infans II
6. Poulík 1957, 369; inventory book 1957 (MInv 57-2_0469)



G 95

1. Inv. No. 4545/57; Church 2, Grave 95
2. Paired with Inv. No. 4544/57; total number of gombíky in grave: 2; situation: by the left side of the lower jaw
3. Dimensions: (loop is missing) × 15.2 × 14.8 mm; material: gilded copper alloy
4. Sphere: a; attachment system: b?; type: chased decoration, ornament: geometric, scheme: of eight fields
5. Sex (anthropologically): -; age-at-death: -
6. Poulík 1957, 306, 369, obr. 85: 1; inventory book 1957 (MInv 57-2_0470)



G 95

1. Inv. No. 4544/57; Church 2, Grave 95; not preserved, without figure
2. Paired with Inv. No. 4545/57; total number of gombíky in grave: 2; situation: under the skull
3. Dimensions: -; material: gilded copper alloy
4. Sphere: -; attachment system: -; type: chased decoration, ornament: geometric, scheme: of eight fields
5. Sex (anthropologically): -; age-at-death: -
6. Poulík 1957, 306, 369, obr. 85: 1; inventory book 1957 (MInv 57-2_0470)

G 97

1. Inv. No. 4454/57; Church 2, Grave 97
2. Paired with Inv. No. 4455/57; total number of gombíky in grave: 2; situation: by the right collarbone at a distance of 25 cm from the lower jaw
3. Dimensions: 18.5 × 11.8 × 13.5 mm; material: silver
4. Sphere: a; attachment system: a; type: soldered decoration, ornament: full-surface granulation
5. Sex (anthropologically): female; age-at-death: maturus II
6. Poulík 1957, 369, obr. 83: 1; Kouřil ed. 2014, 430; inventory book 1957 (MInv 57-2_0443)



G 97

1. Inv. No. 4455/57; Church 2, Grave 97
2. Paired with Inv. No. 4454/57?; total number of gombíky in grave: 2; situation: under the left collarbone
3. Dimensions: 14.1 × 12.1 × 13.5 mm; material: silver
4. Sphere: a; attachment system: b?; type: soldered decoration, ornament: full-surface granulation
5. Sex (anthropologically): female; age-at-death: maturus II
6. Poulík 1957, 369, obr. 83: 1; inventory book 1957 (MInv 57-2_0443)



G 98

1. Inv. No. 4456/57; Church 2, Grave 98
2. Paired with Inv. No. 4457/57; total number of gombíky in grave: 3; situation: under a drooping jaw
3. Dimensions: 27.4 × 21.8 × 22.4 mm; material: silver
4. Sphere: a; attachment system: b; type: soldered decoration, ornament: two-layered
5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: infans I
6. Poulík 1957, 301, 303, 369, obr. 84: 8; Kouřil ed. 2014, 436; inventory book 1957 (MInv 57-2_0443)



G 98

1. Inv. No. 4457/57; Church 2, Grave 98
2. Paired with Inv. No. 4456/57; total number of gombíky in grave: 3; situation: on the right side of the skull near the cheekbones
3. Dimensions: (loop damaged) × 20.4 × 20.5 mm; material: silver
4. Sphere: a; attachment system: b; type: soldered decoration, ornament: two-layered
5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: infans I
6. Poulík 1957, 301, 303, 369, obr. 84: 9; inventory book 1957 (MInv 57-2_0444)



G 98

1. Inv. No. 4526/57; Church 2, Grave 98
2. Non-paired; total number of gombíky in grave: 3; situation: under the upper jaw
3. Dimensions: 10.0 × 6.0 × 5.8 mm; material: silver
4. Sphere: a; attachment system: a; type: soldered decoration, ornament: 'poppyseed' granulation
5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: infans I
6. Poulík 1957, 301, 369, obr. 84: 7; inventory book 1957 (MInv 57-2_0466)



G 100

1. Inv. No. 4460/57; Church 2, Grave 100
2. Paired with Inv. No. 4461/57; total number of gombíky in grave: 2; situation: in the torso area near the collarbones
3. Dimensions: 35.5 × 25.8 × 31.5 mm; material: silver
4. Sphere: a; attachment system: a; type: chased decoration, ornament: plant, scheme: cordate meander
5. Sex (anthropologically): -, gender (archaeologically): male; age-at-death: infans I
6. Poulík 1957, 316, 369, obr. 91; inventory book 1957 (MInv 57-2_0445)



G 100

1. Inv. No. 4461/57; Church 2, Grave 100
2. Paired with Inv. No. 4460/57; total number of gombíky in grave: 2; situation: in the torso area near the collarbones
3. Dimensions: 34.9 × 24.3 × 30.5 mm; material: silver
4. Sphere: a; attachment system: a; type: chased decoration, ornament: plant, scheme: cordate meander
5. Sex (anthropologically): -; gender (archaeologically): male; age-at-death: infans I
6. Poulík 1957, 316, 369, obr. 91; inventory book 1957 (MInv 57-2_0445)



G 102

1. Inv. No. 4464/57; Church 2, Grave 102
2. Non-paired; total number of gombíky in grave: 1; situation: under the skull
3. Dimensions: 26.2 × 18.7 × 20.2 mm; material: gilded copper alloy
4. Sphere: b; attachment system: a; type: chased decoration, ornament: plant, scheme: unclassified
5. Sex (anthropologically): male; age-at-death: maturus I
6. Poulík 1957, 318, 370, obr. 88: 1; inventory book 1957 (MInv 57-2_0446)



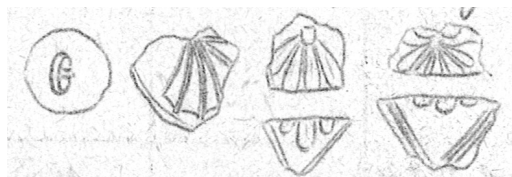
G 104

1. Inv. No. 4465/57; Church 2, Grave 104
2. Paired with Inv. No. 4530/57; total number of gombíky in grave: 2; situation: on the right cheek
3. Dimensions: 22.5 × 14.7 × 16.9 mm; material: silver
4. Sphere: a; attachment system: a; type: chased decoration, ornament: plant, scheme: arcade
5. Sex (anthropologically): male; age-at-death: maturus I
6. Poulík 1957, 370; Kouřil ed. 2014, 425; inventory book 1957 (MInv 57-2_0447)

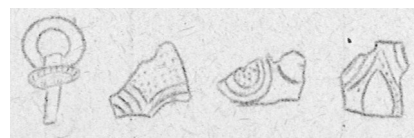


G 104

1. Inv. No. 4530/57; Church 2, Grave 104; not preserved
2. Paired with Inv. No. 4465/57; total number of gombíky in grave: 2; situation: under the skull on its left side
3. Dimensions: -; material: silver
4. Sphere: -; attachment system: -; type: chased decoration, ornament: plant, scheme: arcade
5. Sex (anthropologically): male; age-at-death: maturus I
6. Poulík 1957, 370; inventory book 1957 (MInv 57-2_0467)



- G 117 **1. Inv. No. 4531/57; Church 2, Grave 117; not preserved**
 2. Paired with Inv. No. 4532/57?; total number of gombíky in grave: 2; situation: on the sides of the lower jaw
 3. Dimensions: -; material: silver
 4. Sphere: -; attachment system: a; type: chased decoration, ornament: plant?, scheme: -
 5. Sex (anthropologically): male; age-at-death: maturus I
 6. Poulík 1957, 307, 370-371; inventory book 1957 (MInv 57-2_0467)



- G 117 **1. Inv. No. 4532/57; Church 2, Grave 117; not preserved**
 2. Paired with Inv. No. 4531/57?; total number of gombíky in grave: 2; situation: on the sides of the lower jaw
 3. Dimensions: -; material: silver
 4. Sphere: -; attachment system: a; type: chased decoration, ornament: plant?, scheme: -
 5. Sex (anthropologically): male; age-at-death: maturus I
 6. Poulík 1957, 307, 370-371; inventory book 1957 (MInv 57-2_0467)



- G 121 **1. Inv. No. 1786/56; Church 2, Grave 121; not preserved, without figure**
 2. Non-paired; total number of gombíky in grave: 1; situation: on the left side of the torso part
 3. Dimensions: -; material: silver
 4. Sphere: -; attachment system: -; type: -
 5. Sex (anthropologically): -, gender (archaeologically): male; age-at-death: infans II
 6. Poulík 1957, 307, 371; inventory book 1957 (MInv 1956_0171)

- G 123 **1. Inv. No. 4466/57; Church 2, Grave 123**
 2. Non-paired; total number of gombíky in grave: 2; situation: at the right collarbone
 3. Dimensions: 17.5 × 13.1 × 13.7 mm; material: gilded copper alloy?
 4. Sphere: a; attachment system: b; type: soldered decoration, ornament: full-surface granulation
 5. Sex (anthropologically): -; age-at-death: infans I
 6. Poulík 1957, 308-309, 371, obr. 84: 13; Kouřil ed. 2014, 430; inventory book 1957 (MInv 57-2_0447)



- G 123 **1. Inv. No. 4467/57; Church 2, Grave 123**
 2. Non-paired; total number of gombíky in grave: 2; situation: under the skull on the left side
 3. Dimensions: (loop is missing) × 11.9 × 12.7 mm; material: silver
 4. Sphere: a; attachment system: -; type: soldered decoration, ornament: full-surface granulation
 5. Sex (anthropologically): -; age-at-death: infans I
 6. Poulík 1957, 308-309, 371, obr. 84: 14; inventory book 1957 (MInv 57-2_0447)



- G 128 **1. Inv. No. 4468/57; Church 2, Grave 128**
 2. Paired with Inv. No. 4469/57; total number of gombíky in grave: 4; situation: in the torso area
 3. Dimensions: 24.5 × 18.4 × 21.1 mm; material: silver
 4. Sphere: a; attachment system: a; type: soldered decoration, ornament: with bosses
 5. Sex (anthropologically): -; age-at-death: infans II
 6. Poulík 1957, 301, 303-304, 371, obr. 83: 2; Kouřil ed. 2014, 432; inventory book 1957 (MInv 57-2_0447)



- G 128 **1. Inv. No. 4469/57; Church 2, Grave 128**
 2. Paired with Inv. No. 4468/57; total number of gombíky in grave: 4;
 situation: in the torso area
 3. Dimensions: 23.0 × 16.3 × 20.5 mm; material: silver
 4. Sphere: a; attachment system: a; type: soldered decoration, ornament:
 with bosses
 5. Sex (anthropologically): -; age-at-death: infans II
 6. Poulík 1957, 301, 303-304, 371, obr. 83: 2; inventory book 1957
 (MInv 57-2_0448)



- G 128 **1. Inv. No. 4534/57; Church 2, Grave 128; not preserved**
 2. Paired with Inv. No. 4535/57; total number of gombíky
 in grave: 4; situation: in the torso area
 3. Dimensions: -; material: copper alloy
 4. Sphere: a; attachment system: b; type: chased decoration,
 ornament: -, scheme: vertical ribbing
 5. Sex (anthropologically): -; age-at-death: infans II
 6. Poulík 1957, 371; inventory book 1957 (MInv 57-2_0468)



- G 128 **1. Inv. No. 4535/57; Church 2, Grave 128; not preserved**
 2. Paired with Inv. No. 4534/57; total number of gombíky in grave: 4;
 situation: between the upper and lower jaw
 3. Dimensions: -; material: copper alloy
 4. Sphere: a; attachment system: b; type: chased decoration,
 ornament: -, scheme: vertical ribbing
 5. Sex (anthropologically): -; age-at-death: infans II
 6. Poulík 1957, 371; inventory book 1957 (MInv 57-2_0468)



- G 133 **1. Inv. No. 4472/57; Church 2, Grave 133**
 2. Non-paired; total number of gombíky in grave: 1; situation:
 under the lower jaw
 3. Dimensions: 26.7 × 18.3 × 22.5 mm; material: gilded copper alloy
 4. Sphere: a; attachment system: a; type: chased decoration, ornament:
 geometric, scheme: unclassified
 5. Sex (anthropologically): -; age-at-death: -
 6. Poulík 1957, 306, 371, obr. 81: 7; inventory book 1957 (MInv 57-2_0449)



- G 134 **1. Inv. No. 4473/57; Church 2, Grave 134**
 2. Paired with Inv. No. 4474/57; total number of gombíky in grave: 2;
 situation: in the upper torso area
 3. Dimensions: 27.2 × 20.3 × 21.2 mm; material: silver
 4. Sphere: a; attachment system: a; type: soldered decoration, ornament:
 with bosses
 5. Sex (anthropologically): -; age-at-death: juvenis
 6. Poulík 1957, 304, 371-372, obr. 83: 3; Kouřil ed. 2014, 432; inventory
 book 1957 (MInv 57-2_0449)



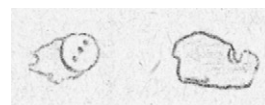
- G 134 **1. Inv. No. 4474/57; Church 2, Grave 134**
 2. Paired with Inv. No. 4473/57; total number of gombíky in grave: 2;
 situation: in the upper torso area
 3. Dimensions: 27.0 × 20.2 × 20.9 mm; material: silver
 4. Sphere: a; attachment system: a; type: soldered decoration, ornament:
 with bosses
 5. Sex (anthropologically): -; age-at-death: juvenis
 6. Poulík 1957, 304, 371-372, obr. 83: 3; inventory book 1957 (MInv 57-2_0449)



- G 136 **1. Inv. No. 4536/57; Church 2, Grave 136; not preserved**
 2. Paired with Inv. No. 4537/57?; total number of gombíky in grave: 2;
 situation: under the lower jaw
 3. Dimensions: -; material: gilded copper alloy
 4. Sphere: -; attachment system: -; type: chased decoration, ornament:
 geometric, scheme: of eight fields?
 5. Sex (anthropologically): -; age-at-death: -
 6. Poulík 1957, 321, 372; inventory book 1957 (MInv 57-2_0468)



- G 136 **1. Inv. No. 4537/57; Church 2, Grave 136; not preserved**
 2. Paired with Inv. No. 5436/57?; total number of gombíky in grave: 2;
 situation: near the right shoulder
 3. Dimensions: -; material: gilded copper alloy
 4. Sphere: -; attachment system: -; type: chased decoration?, ornament:
 geometric?, scheme: of eight fields?
 5. Sex (anthropologically): -; age-at-death: -
 6. Poulík 1957, 321, 372; inventory book 1957 (MInv 57-2_0468)



- G 141 **1. Inv. No. 4538/57; Church 2, Grave 141**
 2. Paired with Inv. No. 4539/57; total number of gombíky in grave: 2;
 situation: near the right shoulder
 3. Dimensions: 18.7 × 13.8 × 16.4 mm; material: gilded copper alloy
 4. Sphere: a; attachment system: a; type: soldered decoration, ornament:
 sparse granulation
 5. Sex (anthropologically): -; age-at-death: infans II
 6. Poulík 1957, 372; inventory book 1957 (MInv 57-2_0468)



- G 141 **1. Inv. No. 4539/57; Church 2, Grave 141**
 2. Paired with Inv. No. 4538/57; total number of gombíky in grave: 2;
 situation: near the right shoulder
 3. Dimensions: 18.8 × 13.7 × 18.3 mm; material: gilded copper alloy
 4. Sphere: a; attachment system: a; type: soldered decoration, ornament:
 sparse granulation
 5. Sex (anthropologically): -; age-at-death: infans II
 6. Poulík 1957, 372; inventory book 1957 (MInv 57-2_0469)



G 212

1. Inv. No. 1200a/56; Church 2, Grave 212
2. Paired with Inv. No. 1200b/56; total number of gombíky in grave: 2; situation: near the skull
3. Dimensions: 15.8 × 11.2 × 11.7 mm; material: silver
4. Sphere: a; attachment system: b; type: soldered decoration, ornament: 'poppyseed' granulation
5. Sex (anthropologically): -; age-at-death: infans I
6. Poulík 1957, 306, 372, obr. 86: 3; Kouřil ed. 2014, 429; inventory book 1956 (MInv 1956_0129)



G 212

1. Inv. No. 1200b/56; Church 2, Grave 212
2. Paired with Inv. No. 1200a/57; total number of gombíky in grave: 2; situation: near the skull
3. Dimensions: diameter 11.6 mm; material: silver
4. Sphere: a; attachment system: b; type: soldered decoration, ornament: 'poppyseed' granulation
5. Sex (anthropologically): -; age-at-death: infans I
6. Poulík 1957, 306, 372, obr. 86: 4; inventory book 1956 (MInv 1956_0129)



G 222

1. Inv. No. 1645/56; Church 2, Grave 222; not preserved, without figure
2. Non-paired; total number of gombíky in grave: 1; situation: unknown
3. Dimensions: -; material: gilded copper alloy
4. Sphere: -; attachment system: -; type: -
5. Sex (anthropologically): male; age-at-death: adultus II
6. Poulík 1957, 372; inventory book 1956 (MInv 1956_0162)

G 255

1. Inv. No. 1588/56; Church 2, Grave 255
2. Paired with Inv. No. 1651/56; total number of gombíky in grave: 2; situation: 12 cm east of eye (inventory book)/on the left collarbone (plan)
3. Dimensions: 26.9 × 19.7 × 22.5 mm; material: gilded copper alloy
4. Sphere: a; attachment system: b; type: chased decoration, ornament: plant, scheme: cordate meander
5. Sex (anthropologically): -; age-at-death: infans I
6. Poulík 1957, 307, 373, obr. 88: 2; inventory book 1956 (MInv 1956_0158)



G 255

1. Inv. No. 1651/56; Church 2, Grave 255
2. Paired with Inv. No. 1588/56; total number of gombíky in grave: 2; situation: under the lower jaw
3. Dimensions: 24.1 × 23.3 × 22.0 mm; material: gilded copper alloy
4. Sphere: a; attachment system: b; type: chased decoration, ornament: plant, scheme: cordate meander
5. Sex (anthropologically): -; age-at-death: infans I
6. Poulík 1957, 307, 373, obr. 88: 2; inventory book 1956 (MInv 1956_0162)



- G 267 **1. Inv. No. 1601/56; Church 2; Grave 267**
 2. Paired with Inv. No. 1602/56; total number of gombíky in grave: 2;
 situation: at the left shoulder
 3. Dimensions: -; material: silver
 4. Sphere: -; attachment system: -; type: -
 5. Sex (anthropologically): -; age-at-death: infans II
 6. Poulík 1957, 308, 373; inventory book 1957 (MInv 1956_0159)



- G 267 **1. Inv. No. 1602/56; Church 2, Grave 267; not preserved, without figure**
 2. Paired with Inv. No. 1601/56; total number of gombíky in grave: 2;
 situation: in upper jaw/in sandy loam in mouth
 3. Dimensions: -; material: silver
 4. Sphere: -; attachment system: -; type: -
 5. Sex (anthropologically): -; age-at-death: infans II
 6. Poulík 1957, 308, 373; inventory book 1957 (MInv 1956_0159)

- G 271 **1. Inv. No. 1767a/56; Church 2, Grave 271**
 2. Paired with Inv. No. 1767f/56?; total number of gombíky in grave: 2;
 situation: not specified relative to the skeleton, all the objects on
 organic material - the residue of a bag?
 3. Dimensions: 21.7 × 15.1 × 13.2 mm; material: gilded copper alloy
 4. Sphere: a; attachment system: c; type: soldered decoration, ornament:
 sparse granulation
 5. Sex (anthropologically): male; age-at-death: maturus I
 6. Poulík 1957, 328, 373, obr. 81: 1; Kouřil ed. 2014, 435; inventory
 book 1956 (MInv 1956_0170)



- G 271 **1. Inv. No. 1767f/56; Church 2, Grave 271; not preserved, without figure**
 2. Paired with Inv. No. 1767a/56?; total number of gombíky in
 grave: 2; situation: not specified relative to the skeleton, all the objects
 on organic material - the residue of a bag?
 3. Dimensions: -; material: gilded copper alloy
 4. Sphere: -; attachment system: -; type: -
 5. Sex (anthropologically): male; age-at-death: maturus I
 6. Unpublished; inventory book 1957 (MInv 1956_0170)

- G 275 **1. Inv. No. 4476/57; Church 2, Grave 275**
 2. Paired with Inv. No. 4477/57; total number of gombíky in grave: 2;
 situation: under the lower jaw
 3. Dimensions: (loop damaged) × 20.2 × 23.2 mm; material: gilded copper
 alloy
 4. Sphere: a; attachment system: a; type: chased decoration, ornament:
 plant, scheme: unclassified
 5. Sex (anthropologically): female; age-at-death: adultus II
 6. Poulík 1957, 307, 308, 374, obr. 89: 1; inventory book 1957 (MInv 57-2_0450)



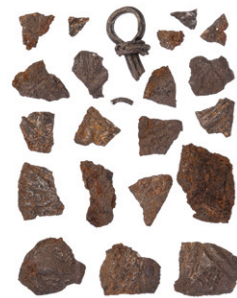
G 275

1. Inv. No. 4477/57; Church 2, Grave 275
2. Paired with Inv. No. 4476/57; total number of gombíky in grave: 2; situation: under the lower jaw
3. Dimensions: (loop damaged) × 20.1 × 22.9 mm; material: gilded copper alloy
4. Sphere: a; attachment system: a; type: chased decoration, ornament: plant, scheme: unclassified
5. Sex (anthropologically): female; age-at-death: adultus II
6. Poulík 1957, 307, 308, 374, obr. 84: 10, 11, 89: 1; inventory book 1957 (MInv 57-2_0450)



G 286

1. Inv. No. 4427a/56; Church 2, Grave 286
2. Paired with Inv. No. 4427b/56?; total number of gombíky in grave: 3; situation: unknown
3. Dimensions: -; material: silver
4. Sphere: a?; attachment system: b; type: chased decoration, ornament: plant, scheme: arcade
5. Sex (anthropologically): female; age-at-death: adult?
6. Unpublished; inventory book 1956 (MInv 1956_0675)



G 286

1. Inv. No. 4427b/56; Church 2, Grave 286; not preserved, without figure
2. Paired with Inv. No. 4427a/57?; total number of gombíky in grave: 3; situation: unknown
3. Dimensions: -; material: silver
4. Sphere: a?; attachment system: b?; type: chased decoration?, ornament: plant?, scheme: arcade?
5. Sex (anthropologically): female; age-at-death: adult?
6. Unpublished; inventory book 1956 (MInv 1956_0675)

G 286

1. Inv. No. 4430/56; Church 2, Grave 286; not preserved, without figure
2. Non-paired; total number of gombíky in grave: 3; situation: unknown
3. Dimensions: -; material: silver
4. Sphere: -; attachment system: -; type: soldered decoration, ornament: full-surface granulation
5. Sex (anthropologically): female; age-at-death: adult?
6. Unpublished; inventory book 1956 (MInv 1956_0675)

G 420b

1. Inv. No. 3003a/58, re-identified; Church 2, Grave 420b
2. Paired with Inv. No. 3003b/58; total number of gombíky in grave: 2; situation: near the skull
3. Dimensions: 28.2 × 20.9 × 27.4 mm; material: gilded copper alloy
4. Sphere: a; attachment system: a; type: chased decoration, ornament: plant, scheme: cordate meander
5. Sex (anthropologically): -; age-at-death: infans I
6. Krupičková et al. 2023, 85-86, 89-90; inventory book 1958 (MInv 58_0717)



- G 420b **1. Inv. No. 3003b/58; Church 2, Grave 420b**
 2. Paired with Inv. No. 3003a/58; total number of gombíky in grave: 2;
 situation: near the skull
 3. Dimensions: 30.2 × 22.4 × 22.4 mm; material: gilded copper alloy
 4. Sphere: a; attachment system: a; type: chased decoration, ornament:
 plant, scheme: cordate meander
 5. Sex (anthropologically): -; age-at-death: infans I
 6. Krupičková et al. 2023, 85-86, 89-90; inventory book 1958 (MInv 58_0717)



- G 420h **1. Inv. No. 4486/57; Church 2, Grave 420h**
 2. Paired with Inv. No. 4487/57; total number of gombíky in grave: 2;
 situation: unknown
 3. Dimensions: (loop is missing) × 17.3 × 17.7 mm; material: silver
 4. Sphere: a; attachment system: -; type: soldered decoration, ornament:
 'poppyseed' granulation
 5. Sex (anthropologically): female; age-at-death: adultus I
 6. Unpublished; inventory book 1957 (MInv 57-2_0453)



- G 420h **1. Inv. No. 4487/57; Church 2, Grave 420h**
 2. Paired with Inv. No. 4486/57; total number of gombíky in grave: 2;
 situation: unknown
 3. Dimensions: (loop is missing) × 16.6 × 17.8 mm; material: silver
 4. Sphere: a; attachment system: -; type: soldered decoration, ornament:
 'poppyseed' granulation
 5. Sex (anthropologically): female; age-at-death: adultus I
 6. Unpublished; inventory book 1957 (MInv 57-2_0454)

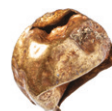


- G 2032 **1. Without Inv. No., Find No. 84/187; Church 2, Grave 2032**
 2. Paired; total number of gombíky in grave: 2; situation: on the sides
 of the jaw on the left and right
 3. Dimensions: 16.0 × 9.4 × 13.3 mm; material: gold
 4. Sphere: a; attachment system: b; type: undecorated
 5. Sex (anthropologically): -; age-at-death: infans I
 6. Poláček et al. 2021, 103



G 2032

1. Without Inv. No., Find No. 84/187; Church 2, Grave 2032
2. Paired; total number of gombíky in grave: 2; situation: on the sides of the jaw on the left and right
3. Dimensions: 14.0 × 9.6 mm × (immeasurable - deformation); material: gold
4. Sphere: a; attachment system: b; type: undecorated
5. Sex (anthropologically): -; age-at-death: infans I
6. Unpublished



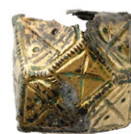
CHURCH 3

- G 146 **1. Without Inv. No.; Church 3, Grave 146; not preserved, without figure**
 2. Non-paired; total number of gombíky in grave: 1; situation: under the skull
 3. Dimensions: 12 mm in diameter; material: gilded copper alloy
 4. Sphere: -; attachment system: -; type: -
 5. Sex (anthropologically): -; age-at-death: 1-4
 6. Klanica et al. 2019, 20

- G 164 **1. Inv. No. 604/56; Church 3, Grave 164; not preserved**
 2. Non-paired; total number of gombíky in grave: 1; situation: near the right hand
 3. Dimensions: -; material: silver
 4. Sphere: -; attachment system: -; type: chased decoration, ornament: -, scheme: -
 5. Sex (anthropologically): male; age-at-death: 20-29
 6. Klanica et al. 2019, 21, 168 (the drawing used comes from this source); inventory book 1956 (MInv 1956_0082)



- G 170 **1. Inv. No. 999a/56; Church 3, Grave 170**
 2. Paired with Inv. No. 999b/56; total number of gombíky in grave: 2; situation: 8 cm below the left shoulder
 3. Dimensions: 25.2 × 16.1 × 16.2-20.9 mm; material: gilded copper alloy
 4. Sphere: a; attachment system: a; type: chased decoration, ornament: antropomorphic, scheme: net
 5. Sex (anthropologically): -; age-at-death: 5-9
 6. Klanica et al. 2019, 22, 170; Kouřil ed. 2014, 435; inventory book 1956 (MInv 1956_0115)



- G 170 **1. Inv. No. 999b/56; Church 3, Grave 170**
 2. Paired with Inv. No. 999a/56; total number of gombíky in grave: 2; situation: 8 cm below the left shoulder
 3. Dimensions: diameter 16.6-20.9 mm; material: gilded copper alloy
 4. Sphere: a; attachment system: a; type: chased decoration, ornament: antropomorphic, scheme: net
 5. Sex (anthropologically): -; age-at-death: 5-9
 6. Klanica et al. 2019, 22, 170; inventory book 1956 (MInv 1956_0115)



G 216

1. Inv. No. 1300a/56; Church 3, Grave 216
2. Paired with Inv. No. 1300b/56; total number of gombíky in grave: 3; situation: above the collarbones on both sides of the neck
3. Dimensions: 47.7 × 36.1 × 40.2 mm; material: silver
4. Sphere: a; attachment system: a; type: chased decoration, ornament: plant, scheme: net
5. Sex (anthropologically): female; age-at-death: 15-19
6. Klanica et al. 2019, 26, 177; Kouřil ed. 2014, 426; Ottenwelter 2022, 181-182; inventory book 1956 (MInv 1956_0135)



G 216

1. Inv. No. 1300b/56; Church 3, Grave 216
2. Paired with Inv. No. 1300a/56; total number of gombíky in grave: 3; situation: above the collarbones on both sides of the neck
3. Dimensions: 48.2 × 34.9 × 40.5 mm; material: silver
4. Sphere: a; attachment system: a; type: chased decoration, ornament: plant, scheme: net
5. Sex (anthropologically): female; age-at-death: 15-19
6. Klanica et al. 2019, 26, 177; inventory book 1956 (MInv 1956_0135)



G 216

1. Inv. No. 1301/56; Church 3, Grave 216
2. Non-paired; total number of gombíky in grave: 3; situation: on the left at the cervical vertebrae
3. Dimensions: 25.1 × 17.3 × 16.7-20.0 mm; material: gilded silver
4. Sphere: a; attachment system: a; type: soldered decoration, ornament: 'poppyseed' granulation
5. Sex (anthropologically): female; age-at-death: 15-19
6. Klanica et al. 2019, 26, 177; Kouřil ed. 2014, 429; inventory book 1956 (MInv 1956_0136)



- G 240
1. Inv. No. 1343/56; Church 3, Grave 240
 2. Non-paired; total number of gombíky in grave: 1; situation: 6 cm east of the chin
 3. Dimensions: 15.9 × 12.5 × 12.7 mm; material: silver
 4. Sphere: a; attachment system: b; type: soldered decoration, ornament: full-surface granulation
 5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: -
 6. Klanica et al. 2019, 27–28, 178; inventory book 1956 (MInv 1956_0139)



- G 250
1. Inv. No. 1401/56; Church 3, Grave 250; not preserved
 2. Non-paired; total number of gombíky in grave: 1; situation: in a group to the left of the skeleton at elbow height (together with earrings)
 3. Dimensions: -; material: silver
 4. Sphere: -; attachment system: a; type: chased decoration?; ornament: -, scheme: -
 5. Sex (anthropologically): -; age-at-death: 20-29
 6. Klanica et al. 2019, 31, 182 (the drawing used comes from this source); inventory book 1956 (MInv 1956_0144)



- G 290
1. Inv. No. 4a/57; Church 3, Grave 290
 2. Paired with Inv. No. 4b/57; total number of gombíky in grave: 2; situation: by the lower jaw
 3. Dimensions: 30.5 × 22.3 × 26.4 mm; material: gilded copper alloy
 4. Sphere: c; attachment system: b; type: chased decoration, ornament: plant, scheme: cordate meander
 5. Sex (anthropologically): -; age-at-death: 1-4
 6. Klanica et al. 2019, 33, 186; Kouřil ed. 2014, 425; inventory book 1957 (MInv 57-1_0001)



- G 290
1. Inv. No. 4b/57; Church 3, Grave 290
 2. Paired with Inv. No. 4a/57; total number of gombíky in grave: 2; situation: by the lower jaw
 3. Dimensions: 30.8 × 24.1 × 25.9 mm; material: gilded copper alloy
 4. Sphere: c; attachment system: b; type: chased decoration, ornament: plant, scheme: cordate meander
 5. Sex (anthropologically): -; age-at-death: 1-4
 6. Klanica et al. 2019, 33, 186; inventory book 1957 (MInv 57-1_0001)



G 300

1. Inv. No. 294/57; Church 3, Grave 300
2. Non-paired; total number of gombíky in grave: 1; situation: left behind the skull
3. Dimensions: 19.3 × 13.5 × 14.2 mm; material: gold
4. Sphere: a; attachment system: a; type: soldered decoration, ornament: 'poppyseed' granulation
5. Sex (anthropologically): male; age-at-death: 15–19
6. Klanica et al. 2019, 35, 189; Kouřil ed. 2014, 429; Ottenwelter 2022, 163–164; inventory book 1957 (MInv 57-1_0045)



G 318

1. Inv. No. 6/57; Church 3, Grave 318
2. Paired with Inv. No. 4480/57; total number of gombíky in grave: 5; situation: in the torso area, on the sides
3. Dimensions: (loop damaged) × 24.3 × 21.4 mm; material: gilded silver
4. Sphere: a; attachment system: b; type: soldered decoration, ornament: full-surface granulation
5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: -
6. Klanica et al. 2019, 40, 196; inventory book 1957 (MInv 57-1_0002)



G 318

1. Inv. No. 4480/57; Church 3, Grave 318
2. Paired with Inv. No. 6/57; total number of gombíky in grave: 5; situation: in the torso area, on the sides
3. Dimensions: (loop damaged) × 24.2 × 21.4 mm; material: gilded silver
4. Sphere: a; attachment system: b; type: soldered decoration, ornament: all-surface granulation
5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: -
6. Klanica et al. 2019, 40, 196; inventory book 1957 (MInv 57-1_0002)



G 318

1. Inv. No. 100c/57; Church 3, Grave 318
2. Trio with Inv. No. 4481/57 and Inv. No. 100d/57; total number of gombíky in grave: 5; situation: in the torso area, in the middle
3. Dimensions: 24.8 × 19.5 × 16.5–17.6 mm; material: gold
4. Sphere: a; attachment system: c; type: soldered decoration, ornament: sparse granulation
5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: -
6. Klanica et al. 2019, 40, 196; Kouřil ed. 2014, 435; inventory book 1957 (MInv 57-1_0012)



- G 318
1. Inv. No. 4481/57; Church 3, Grave 318
 2. Trinity with Inv. No. 100c/57 and Inv. No. 100d/57; total number of gombíky in grave: 5; situation: in the torso area, in the middle
 3. Dimensions: 24.8 × 19.6 × 15.7-17.8 mm; material: gold
 4. Sphere: a; attachment system: c; type: soldered decoration, ornament: sparse granulation
 5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: -
 6. Klanica et al. 2019, 40, 196; Kouřil ed. 2014, 435; inventory book 1957 (MInv 57-2_0452)



- G 318
1. Inv. No. 100d/57; Church 3, Grave 318
 2. Trinity with Inv. No. 100c/57 and Inv. No. 4481/57; total number of gombíky in grave: 5; situation: in the torso area, in the middle
 3. Dimensions: 25.8 × 21.0 × 16.9-17.6 mm; material: gold
 4. Sphere: a; attachment system: c; type: soldered decoration, ornament: sparse granulation
 5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: -
 6. Klanica et al. 2019, 40, 196; Kouřil ed. 2014, 435; inventory book 1957 (MInv 57-1_0012)



- G 328
1. Inv. No. 142a/57; Church 3, Grave 328
 2. Paired with Inv. No. 142c/57; total number of gombíky in grave: 3; situation: under the pelvis
 3. Dimensions: 41.8 × 31.9 × 34.7 mm; material: silver
 4. Sphere: c; attachment system: a; type: chased decoration, ornament: plant, scheme: cordate meander
 5. Sex (anthropologically): female; age-at-death: 20-29
 6. Klanica et al. 2019, 42-43, 201; inventory book 1957 (MInv 57-1_0018)



- G 328
1. Inv. No. 142b/57; Church 3, Grave 328
 2. Non-paired; total number of gombíky in grave: 3; situation: at the spine in the mediastinum
 3. Dimensions: 38.6 × 29.1 × 32.4 mm; material: silver
 4. Sphere: c; attachment system: a; type: chased decoration, ornament: plant, scheme: cordate meander
 5. Sex (anthropologically): female; age-at-death: 20-29
 6. Klanica et al. 2019, 42-43, 201; Ottenwelter 2022, 179-180; inventory book 1957 (MInv 57-1_0018)



G 328

1. Inv. No. 142c/57; Church 3, Grave 328
2. Paired with Inv. No. 142a/57; total number of gombíky in grave: 3; situation: on the right side?
3. Dimensions: -; material: silver
4. Sphere: c; attachment system: a; type: chased decoration, ornament: plant, scheme: cordate meander
5. Sex (anthropologically): female; age-at-death: 20-29
6. Klanica et al. 2019, 42-43; inventory book 1957 (MInv 57-1_0018)



G 343

1. Inv. No. 299/57; Church 3, Grave 343
2. Non-paired; total number of gombíky in grave: 1; situation: unknown
3. Dimensions: 39.5 × 29.6 × 33.4 mm; material: silver
4. Sphere: c; attachment system: a; type: chased decoration, ornament: plant, scheme: cordate meander
5. Sex (anthropologically): -; age-at-death: 1-4
6. Klanica et al. 2019, 48, 210; Kouřil ed. 2014, 426; inventory book 1957 (MInv 57-1_0046)



G 349

1. Inv. No. 298a/57; Church 3, Grave 349
2. Paired with Inv. No. 298b/57; total number of gombíky in grave: 2; situation: between the left humerus and ribs
3. Dimensions: (loop is missing) × 27.0 × 35.1 mm; material: silver
4. Sphere: c; attachment system: a?; type: chased decoration, ornament: plant, scheme: arcade
5. Sex (anthropologically): -; age-at-death: 1-4
6. Klanica et al. 2019, 49, 211; Kouřil ed. 2014, 427; inventory book 1957 (MInv 57-1_0046)



- G 349 **1. Inv. No. 298b/57; Church 3, Grave 349**
 2. Paired with Inv. No. 298a/57; total number of gombíky in grave: 2;
 situation: south of the chest
 3. Dimensions: 33.9 × 26.4 × 35.8 mm; material: silver
 4. Sphere: c; attachment system: a; type: chased decoration, ornament:
 plant, scheme: arcade
 5. Sex (anthropologically): -; age-at-death: 1-4
 6. Klanica et al. 2019, 49, 211; inventory book 1957 (MInv 57-1_0046)



- G 364 **1. Inv. No. 604c/57; Church 3, Grave 364**
 2. Paired with Inv. No. 604b/57; total number of gombíky in grave: 2;
 situation: skeleton not preserved - buttons together with beads found
 in the area of the head
 3. Dimensions: 25.5 × 18.0 × 14.6 mm; material: gilded copper alloy
 4. Sphere: a; attachment system: c; type: soldered decoration, ornament:
 sparse granulation
 5. Sex (anthropologically): -; age-at-death: -
 6. Klanica et al. 2019, 51-52, 215; Kouřil ed. 2014, 421; inventory book 1957
 (MInv 57-1_0083)



- G 364 **1. Inv. No. 604b/57; Church 3, Grave 364**
 2. Paired with Inv. No. 604c/57; total number of gombíky in grave: 2;
 situation: skeleton not preserved - buttons together with beads found
 in the area of the head
 3. Dimensions: 25.9 × 17.7 × 14.6 mm; material: gilded copper alloy
 4. Sphere: a; attachment system: c; type: soldered decoration, ornament:
 sparse granulation
 5. Sex (anthropologically): -; age-at-death: -
 6. Klanica et al. 2019, 51-52, 215; inventory book 1957 (MInv 57-1_0083)

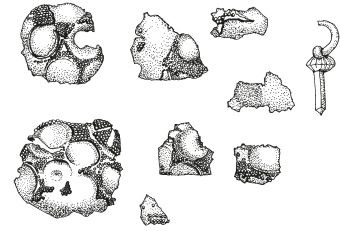


- G 380 **1. Inv. No. 606/57; Church 3, Grave 380**
 2. Non-paired; total number of gombíky in grave: 1; situation:
 at the neck under the skull
 3. Dimensions: 29.2 × 19.8 × 22.9 mm; material: gold
 4. Sphere: a; attachment system: b; type: chased decoration, ornament:
 plant, scheme: arcade
 5. Sex (anthropologically): -, gender (archaeologically): male; age-at-death: -
 6. Klanica et al. 2019, 56, 222; Kouřil ed. 2014, 426; inventory book 1957
 (MInv 57-1_0083)



G 390

1. Inv. No. 859/57; Church 3, Grave 390; not preserved
2. Non-paired; total number of gombíky in grave: 1; situation: on the left side of the skull
3. Dimensions: -; material: silver
4. Sphere: -; attachment system: -; type: soldered decoration, ornament: with bosses
5. Sex (anthropologically): male; age-at-death: 30-59
6. Klanica et al. 2019, 59, 227 (the drawing used comes from this source); inventory book 1957 (MInv 57-1_0129)



G 396A

1. Inv. No. 1032/57; Church 3, Grave 396A
2. Non-paired; total number of gombíky in grave: 5; situation: skeleton not preserved - gombíky in two groups
3. Dimensions: (loop damaged) × 30.8 × 37.6 mm; material: silver
4. Sphere: a; attachment system: a; type: chased decoration, ornament: plant, scheme: arcade
5. Sex (anthropologically): -; age-at-death: -
6. Klanica et al. 2019, 61, 229; inventory book 1957 (MInv 57-1_0157)



G 396A

1. Inv. No. 1033a/57; Church 3, Grave 396A
2. Paired with Inv. No. 1033b/57; total number of gombíky in grave: 5; situation: skeleton not preserved - gombíky in two groups
3. Dimensions: 26.8 × 19.4 × 22.9 mm; material: gilded copper alloy
4. Sphere: c; attachment system: a; type: chased decoration, ornament: plant, scheme: arcade
5. Sex (anthropologically): -; age-at-death: -
6. Klanica et al. 2019, 61, 229; inventory book 1957 (MInv 57-1_0157)



G 396A

1. Inv. No. 1033b/57; Church 3, Grave 396A
2. Paired with Inv. No. 1033a/57; total number of gombíky in grave: 5; situation: skeleton not preserved - gombíky in two groups
3. Dimensions: 27.7 × 19.2 × 23.2 mm; material: gilded copper alloy
4. Sphere: c; attachment system: a; type: chased decoration, ornament: plant, scheme: arcade
5. Sex (anthropologically): -; age-at-death: -
6. Klanica et al. 2019, 61, 229; inventory book 1957 (MInv 57-1_0157)



- G 396A **1. Inv. No. 1034a/57; Church 3, Grave 396A**
 2. Paired with Inv. No. 1034b/57; total number of gombíky in grave: 5;
 situation: skeleton not preserved - gombíky in two groups
 3. Dimensions: 22.5 × 16.4 × 16.5 mm; material: gilded copper alloy
 4. Sphere: a; attachment system: b; type: chased decoration, ornament:
 plant, scheme: medallion
 5. Sex (anthropologically): -; age-at-death: -
 6. Klanica et al. 2019, 61, 229; inventory book 1957 (MInv 57-1_0157)



- G 396A **1. Inv. No. 1034b/57; Church 3, Grave 396A**
 2. Paired with Inv. No. 1034a/57; total number of gombíky in grave: 5;
 situation: skeleton not preserved - gombíky in two groups
 3. Dimensions: 21.6 × 15.2 × 16.6 mm; material: gilded copper alloy
 4. Sphere: a; attachment system: b; type: chased decoration, ornament:
 plant, scheme: medallion
 5. Sex (anthropologically): -; age-at-death: -
 6. Klanica et al. 2019, 61, 229; Kouřil ed. 2014, 428; inventory book 1957
 (MInv 57-1_0157)



- G 398 **1. Inv. No. 1353a/57; Church 3, Grave 398**
 2. Paired with Inv. No. 1353b/57; total number of gombíky in grave: 2;
 situation: at the inner side of the distal part of the left femur
 3. Dimensions: 24.8 × 17.9 × 20.4 mm; material: gilded copper alloy
 4. Sphere: a; attachment system: b; type: chased decoration, ornament:
 plant, scheme: unclassified
 5. Sex (anthropologically): male; age-at-death: 30-59
 6. Klanica et al. 2019, 61, 230; inventory book 1957 (MInv 57-1_0213)



- G 398 **1. Inv. No. 1353b/57; Church 3, Grave 398**
 2. Paired with Inv. No. 1353a/57; total number of gombíky in grave: 2;
 situation: at the inner side of the distal part of the left femur
 3. Dimensions: 26.2 × 18.1 × 20.3 mm; material: gilded copper alloy
 4. Sphere: a; attachment system: b; type: chased decoration, ornament:
 plant, scheme: unclassified
 5. Sex (anthropologically): male; age-at-death: 30-59
 6. Klanica et al. 2019, 61, 230; inventory book 1957 (MInv 57-1_0213)



G 424

1. Inv. No. 784/57; Church 3, Grave 424
2. Non-paired; total number of gombíky in grave: 1; situation: in the right part of the torso
3. Dimensions: (loop is missing) × 14.4 × 15.9 mm; material: silver
4. Sphere: a; attachment system: -; type: soldered decoration, ornament: 'poppyseed' granulation
5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: 5-9
6. Klanica et al. 2019, 64-65, 235; inventory book 1957 (MInv 57-1_0113)



G 425

1. Inv. No. 781/57; Church 3, Grave 425
2. Non-paired; total number of gombíky in grave: 1; situation: on the left side of the chin
3. Dimensions: 22.2 × 13.3 × 15-15.8 mm; material: gold
4. Sphere: b; attachment system: b; type: chased decoration, ornament: -, scheme: vertical ribbing
5. Sex (anthropologically): -, gender (archaeologically): male; age-at-death: maturus
6. Klanica et al. 2019, 65, 236; Kouřil ed. 2014, 420; Ottenwelter 2022, 158-160; inventory book 1957 (MInv 57-1_0112)



G 427

1. Inv. No. 993a/57; Church 3, Grave 427
2. Paired with Inv. No. 993b/57; total number of gombíky in grave: 4; situation: above the remains of the collarbone, on the left side
3. Dimensions: 34.8 × 27.9 × 32.2 mm; material: silver
4. Sphere: b; attachment system: a; type: chased decoration, ornament: plant, scheme: net
5. Sex (anthropologically): -; age-at-death: adult?
6. Klanica et al. 2019, 66, 238; Kouřil ed. 2014, 426; inventory book 1957 (MInv 57-1_0151)



G 427

1. Inv. No. 993b/57; Church 3, Grave 427
2. Paired with Inv. No. 993a/57; total number of gombíky in grave: 4; situation: above the remains of the collarbone, on the right side
3. Dimensions: 39.0 × 31.5 × 32.4 mm; material: silver
4. Sphere: b; attachment system: a; type: chased decoration, ornament: plant, scheme: net
5. Sex (anthropologically): -; age-at-death: adult?
6. Klanica et al. 2019, 66, 238; inventory book 1957 (MInv 57-1_0151)



- G 427
1. Inv. No. 994a/57; Church 3, Grave 427
 2. Paired with Inv. No. 994b/57; total number of gombíky in grave: 4; situation: above the remains of the collarbone, on the left side, closer to the skull
 3. Dimensions: 27.9 × 20.3 × 24.1 mm; material: gilded copper alloy
 4. Sphere: b; attachment system: a; type: chased decoration, ornament: plant, scheme: cordate meander
 5. Sex (anthropologically): -; age-at-death: adult?
 6. Klanica et al. 2019, 66, 238; Kouřil ed. 2014, 425; inventory book 1957 (MInv 57-1_0151)



- G 427
1. Inv. No. 994b/57; Church 3, Grave 427
 2. Paired with Inv. No. 994a/57; total number of gombíky in grave: 4; situation: above the remains of the collarbone, on the right side, closer to the skull
 3. Dimensions: 27.2 × 20.2 × 24.0 mm; material: gilded copper alloy
 4. Sphere: b; attachment system: a; type: chased decoration, ornament: plant, scheme: cordate meander
 5. Sex (anthropologically): -; age-at-death: adult?
 6. Klanica et al. 2019, 66, 238; inventory book 1957 (MInv 57-1_0151)



- G 431
1. Inv. No. 870/57; Church 3, Grave 431; not preserved, without figure
 2. Non-paired; total number of gombíky in grave: 1; situation: on the breast/under the chin on the ribs
 3. Dimensions: -; material: silver
 4. Sphere: -; attachment system: -; type: -
 5. Sex (anthropologically): -; age-at-death: 10-14
 6. Klanica et al. 2019, 67, 239; inventory book 1957 (MInv 57-1_0131)

- G 437
1. Inv. No. 868/57; Church 3, Grave 437
 2. Non-paired; total number of gombíky in grave: 1; situation: behind the head/in the head area
 3. Dimensions: 18.5 × 13.1 × 15.4 mm; material: silver
 4. Sphere: a; attachment system: a; type: soldered decoration, ornament: 'poppyseed' granulation
 5. Sex (anthropologically): -, gender (archaeologically): male; age-at-death: -1-4
 6. Klanica et al. 2019, 69-70, 243; inventory book 1957 (MInv 57-1_0130)



G 440

1. Inv. No. 862a/57; Church 3, Grave 440
2. Paired with Inv. No. 826b/57; total number of gombíky in grave: 2; situation: on the right side of the head/just next to the chin
3. Dimensions: 26.5 × 20.2 × 19.5 mm; material: gold
4. Sphere: a; attachment system: b; type: soldered decoration, ornament: filigree rings
5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: 10-14
6. Klanica et al. 2019, 72, 246; inventory book 1957 (MInv 57-1_0129)



G 440

1. Inv. No. 862b/57; Church 3, Grave 440
2. Paired with Inv. No. 826a/57; total number of gombíky in grave: 2; situation: on the left side of the chin about 10 cm further north
3. Dimensions: 26.4 × 20.9 × 19.1 mm; material: gold
4. Sphere: a; attachment system: b; type: soldered decoration, ornament: filigree rings
5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: 10-14
6. Klanica et al. 2019, 72, 246; Kouřil ed. 2014, 436; inventory book 1957 (MInv 57-1_0129)



G 452

1. Inv. No. 1003/57; Church 3, Grave 452
2. Non-paired; total number of gombíky in grave: 1; situation: at the left temporal bone
3. Dimensions: 19.0 × 13.7 × 15.5 mm; material: gilded copper alloy
4. Sphere: a; attachment system: b; type: soldered decoration, ornament: full-surface granulation
5. Sex (anthropologically): -; age-at-death: 5-9
6. Klanica et al. 2019, 75, 249; inventory book 1957 (MInv 57-1_0153)



G 454

1. Inv. No. 864b/57; Church 3, Grave 454
2. Non-paired; total number of gombíky in grave: 1; situation: to the left of the upper jaw
3. Dimensions: 38.6 × 28.2 × 33.9 mm; material: silver
4. Sphere: c; attachment system: a; type: chased decoration, ornament: plant, scheme: arcade
5. Sex (anthropologically): -; age-at-death: 5-9
6. Klanica et al. 2019, 76, 250; inventory book 1957 (MInv 57-1_0130)



- G 465
1. Inv. No. 1024a/57; Church 3, Grave 465; not preserved
 2. Paired with Inv. No. 1024b/57; total number of gombíky in grave: 2; situation: on the left collarbone
 3. Dimensions: height 20 mm, diameter 14 mm; material: gilded copper alloy
 4. Sphere: a; attachment system: -; type: soldered decoration, ornament: sparse granulation
 5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: 1-4
 6. Klanica et al. 2019, 79, 253; inventory book 1957 (MInv 57-1_0156)



- G 465
1. Inv. No. 1024b/57; Church 3, Grave 465; not preserved, without figure
 2. Paired with Inv. No. 1024a/57; total number of gombíky in grave: 2; situation: on the right collarbone
 3. Dimensions: height 20 mm, diameter 14 mm; material: gilded copper alloy
 4. Sphere: a; attachment system: -; type: soldered decoration, ornament: sparse granulation
 5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: 1-4
 6. Klanica et al. 2019, 79, 253; inventory book 1957 (MInv 57-1_0156)

- G 469
1. Inv. No. 1619/57; Church 3, Grave 469
 2. Non-paired; total number of gombíky in grave: 1; situation: in profile above the skeleton at a depth of 20 cm - unclear connection with the grave
 3. Dimensions: diameter 30.1 mm, loop 9.3 mm; material: silver
 4. Sphere: a; attachment system: a; type: chased decoration, ornament: plant, scheme: cordate meander
 5. Sex (anthropologically): female; age-at-death: 60+
 6. Klanica et al. 2019, 80, 253; inventory book 1957 (MInv 57-1_0256)



- G 470
1. Inv. No. 872a/57; Church 3, Grave 470
 2. Paired with Inv. No. 872b/57; total number of gombíky in grave: 2; situation: on chest
 3. Dimensions: 20.2 × 16.8 × 16.0 mm; material: gilded silver
 4. Sphere: a; attachment system: b; type: soldered decoration, ornament: 'poppyseed' granulation
 5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: adultus?
 6. Klanica et al. 2019, 81, 255; inventory book 1957 (MInv 57-1_0131)



- G 470
1. Inv. No. 872b/57; Church 3, Grave 470
 2. Paired with Inv. No. 872a/57; total number of gombíky in grave: 2; situation: on chest
 3. Dimensions: 20.7 × 16.5 × 16.4 mm; material: gilded silver
 4. Sphere: a; attachment system: b; type: soldered decoration, ornament: 'poppyseed' granulation
 5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: adultus?
 6. Klanica et al. 2019, 81, 255; Kouřil ed. 2014, 429; inventory book 1957 (MInv 57-1_0131)



G 471

1. Inv. No. 1026a/57; Church 3, Grave 471
2. Paired with Inv. No. 1026b/57; total number of gombíky in grave: 2; situation: on the sides of the skull
3. Dimensions: 32.8 × 25.5 × 32.6 mm; material: silver
4. Sphere: b; attachment system: b; type: chased decoration, ornament: plant, scheme: arcade
5. Sex (anthropologically): -, gender (archaeologically): male; age-at-death: 1-4
6. Klanica et al. 2019, 81, 256; Kouřil ed. 2014, 428; inventory book 1957 (MInv 57-1_0156)



G 471

1. Inv. No. 1026b/57; Church 3, Grave 471
2. Paired with Inv. No. 1026a/57; total number of gombíky in grave: 2; situation: on the sides of the skull
3. Dimensions: 33.3 × 25.8 × 34.7 mm; material: silver
4. Sphere: b; attachment system: b; type: chased decoration, ornament: plant, scheme: arcade
5. Sex (anthropologically): -, gender (archaeologically): male; age-at-death: 1-4
6. Klanica et al. 2019, 81, 256; inventory book 1957 (MInv 57-1_0156)



G 472

1. Inv. No. 1028/57; Church 3, Grave 472
2. Non-paired; total number of gombíky in grave: 5; situation: on the fingers of the right hand/in the area of the right hand - along with fragments of copper alloy in remnants of leather (in a pouch?)
3. Dimensions: -; material: silver
4. Sphere: a; attachment system: c; type: chased decoration, ornament: plant, scheme: cordate meander
5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: infans I
6. Klanica et al. 2019, 82, 257; inventory book 1957 (MInv 57-1_0156)



G 472

1. Inv. No. 1029/57; Church 3, Grave 472
2. Paired with Inv. No. 3020/57; total number of gombíky in grave: 5; situation: near the collarbone
3. Dimensions: (loop damaged × 15.1 × 11.8 mm; material: gilded copper alloy
4. Sphere: a; attachment system: -; type: soldered decoration, ornament: filigree
5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: infans I
6. Klanica et al. 2019, 82, 257; inventory book 1957 (MInv 57-1_0157)



- G 472 **1. Inv. No. 3020/57; Church 3, Grave 472; not preserved, without figure**
 2. Paired with Inv. No. 1029/57; total number of gombíky in grave: 5; situation: near the collarbone
 3. Dimensions: -; material: gilded copper alloy
 4. Sphere: a; attachment system: -; type: soldered decoration, ornament: filigree
 5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: infans I
 6. Klanica et al. 2019, 82, 257; inventory book 1957 (MInv 57-1_0503)

- G 472 **1. Inv. No. 3019a/57; Church 3, Grave 472; not preserved**
 2. Paired with Inv. No. 3019b/57; total number of gombíky in grave: 5; situation: near the collarbone
 3. Dimensions: -; material: glass
 4. Sphere: not analysed; attachment system: not analysed; type: not analysed
 5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: infans I
 6. Klanica et al. 2019, 82, 257; inventory book 1957 (MInv 57-1_0503)



- G 472 **1. Inv. No. 3019b/57; Church 3, Grave 472; not preserved**
 2. Paired with Inv. No. 3019a/57; total number of gombíky in grave: 5; situation: near the collarbone
 3. Dimensions: -; material: glass
 4. Sphere: not analysed; attachment system: not analysed; type: not analysed
 5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: infans I
 6. Klanica et al. 2019, 83, 258; inventory book 1957 (MInv 57-1_0503)



- G 473 **1. Inv. No. 996/57, re-identified; Church 3, Grave 473**
 2. Non-paired; total number of gombíky in grave: 2; situation: by the right calf
 3. Dimensions: 33.8 × 25.7 × 27.6 mm; material: gilded copper alloy
 4. Sphere: c; attachment system: a; type: chased decoration, ornament: plant, scheme: unclassified
 5. Sex (anthropologically): -; age-at-death: 1-4
 6. Klanica et al. 2019, 82, 257; Krupičková et al. 2023, 85, 88-89; inventory book 1957 (MInv 57-1_0152)



- G 473 **1. Inv. No. 1436/57; Church 3, Grave 473; not preserved**
 2. Non-paired; total number of gombíky in grave: 2; situation: unknown
 3. Dimensions: -; material: glass
 4. Sphere: not analysed; attachment system: not analysed; type: not analysed
 5. Sex (anthropologically): -; age-at-death: 1-4
 6. Klanica et al. 2019, 83; inventory book 1957 (MInv 57-1_0226)



- G 478 **1. Inv. No. 1023/57; Church 3, Grave 478**
 2. Non-paired; total number of gombíky in grave: 3; situation: below the chin/6 cm north of the upper jaw
 3. Dimensions: (loop damaged) × 12.3 × 16.9 mm; material: silver-plated copper alloy
 4. Sphere: b; attachment system: b; type: chased decoration, ornament: plant, scheme: arcade
 5. Sex (anthropologically): -; age-at-death: -
 6. Klanica et al. 2019, 84, 260; inventory book 1957 (MInv 57-1_0155)



- G 478 **1. Inv. No. 1022a/57; Church 3, Grave 478**
 2. Paired with Inv. No. 1022b/57; total number of gombíky in grave: 3; situation: under the chin/on the side of the chin
 3. Dimensions: -; material: silver
 4. Sphere: a; attachment system: b?; type: chased decoration, ornament: plant, scheme: medallion
 5. Sex (anthropologically): -; age-at-death: -
 6. Klanica et al. 2019, 84, 260; inventory book 1957 (MInv 57-1_0155)



- G 478 **1. Inv. No. 1022b/57; Church 3, Grave 478**
 2. Paired with Inv. No. 1022a/57; total number of gombíky in grave: 3; situation: under the chin/on the side of the chin
 3. Dimensions: 14.5 × 10.3 × 12.2 mm; material: silver
 4. Sphere: a; attachment system: b?; type: chased decoration, ornament: plant, scheme: medallion
 5. Sex (anthropologically): -; age-at-death: -
 6. Klanica et al. 2019, 84, 260; inventory book 1957 (MInv 57-1_0155)



- G 490 **1. Inv. No. 1120/57; Church 3, Grave 490**
 2. Non-paired; total number of gombíky in grave: 1; situation: under the skull
 3. Dimensions: 21.6 × 15.9 × 17.4 mm; material: gold
 4. Sphere: b; attachment system: b; type: chased decoration, ornament: plant, scheme: arcade
 5. Sex (anthropologically): -, gender (archaeologically): male; age-at-death: maturus?
 6. Klanica et al. 2019, 88, 263; inventory book 1957 (MInv 57-1_0174)



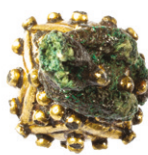
- G 491 **1. Inv. No. 1001a/57; Church 3, Grave 491**
 2. Paired with Inv. No. 1001b/57; total number of gombíky in grave: 2; situation: between the right side of the upper jaw and the right shoulder blade
 3. Dimensions: 18.8 × 12.7 × 13.7 mm; material: gilded silver
 4. Sphere: a; attachment system: a; type: soldered decoration, ornament: 'poppyseed' granulation
 5. Sex (anthropologically): -; age-at-death: 1-4
 6. Klanica et al. 2019, 89, 262; inventory book 1957 (MInv 57-1_0153)



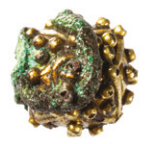
- G 491 **1. Inv. No. 1001b/57; Church 3, Grave 491; not preserved**
 2. Paired with Inv. No. 1001a/57; total number of gombíky in grave: 2;
 situation: between the right side of the upper jaw and the right
 shoulder blade
 3. Dimensions: -; material: gilded silver
 4. Sphere: -; attachment system: -; type: soldered decoration, ornament:
 'poppyseed' granulation?
 5. Sex (anthropologically): -; age-at-death: 1-4
 6. Klanica et al. 2019, 89; inventory book 1957 (MInv 57-1_0153)



- G 498 **1. Inv. No. 1174a/57; Church 3, Grave 498**
 2. Paired with Inv. No. 1174b/57; total number of gombíky in grave: 2;
 situation: near the collarbones
 3. Dimensions: 24.2 × 18.4 × 13.1-15.6 mm; material: gilded copper alloy
 4. Sphere: a; attachment system: c; type: soldered decoration, ornament:
 sparse granulation
 5. Sex (anthropologically): -; age-at-death: 1-4
 6. Klanica et al. 2019, 90, 264; Krupičková et al. 2019, 89-93; Ottenwelter
 2022, 175-176; inventory book 1957 (MInv 57-1_0184)



- G 498 **1. Inv. No. 1174b/57; Church 3, Grave 498**
 2. Paired with Inv. No. 1174a/57; total number of gombíky in grave: 2;
 situation: near the collarbones
 3. Dimensions: (loop damaged) × 17.1 × 13.8 -15.9 mm; material: gilded
 copper alloy
 4. Sphere: a; attachment system: c; type: soldered decoration, ornament:
 sparse granulation
 5. Sex (anthropologically): -; age-at-death: 1-4
 6. Klanica et al. 2019, 90, 264; Krupičková et al. 2019, 89-93; inventory
 book 1957 (MInv 57-1_0184)



- G 504 **1. Inv. No. 1040a/57; Church 3, Grave 504**
 2. Paired with Inv. No. 1040b/57; total number of gombíky in grave: 2;
 situation: between the right clavicle and skull
 3. Dimensions: (loop damaged) × 12.0 × 12.6 mm; material: gilded copper alloy
 4. Sphere: c?; attachment system: b; type: chased decoration,
 ornament: -, scheme: vertical ribbing
 5. Sex (anthropologically): -, gender (archaeologically): female;
 age-at-death: 1-4
 6. Klanica et al. 2019, 93-94, 268; inventory book 1957 (MInv 57-1_0159)



G 504

1. Inv. No. 1040b/57; Church 3, Grave 504
2. Paired with Inv. No. 1040a/57; total number of gombíky in grave: 2; situation: on the left side of the spine, about 10 cm from the skull
3. Dimensions: 21.2 × 12.2 × 13.1 mm; material: gilded copper alloy
4. Sphere: c?; attachment system: b; type: chased decoration, ornament: -, scheme: vertical ribbing
5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: 1-4
6. Klanica et al. 2019, 93-94, 268; inventory book 1957 (MInv 57-1_0159)



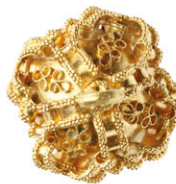
G 505

1. Inv. No. 1122a/57; Church 3, Grave 505
2. Paired with Inv. No. 1122b/57; total number of gombíky in grave: 6; situation: below the chin/above the collarbones
3. Dimensions: 26.1 × 20.3 × 20.5-22 mm; material: gold
4. Sphere: a; attachment system: c; type: soldered decoration, ornament: two-layered
5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: adultus
6. Klanica et al. 2019, 94-95, 269; Kouřil ed. 2014, 436; inventory book 1957 (MInv 57-1_0174)



G 505

1. Inv. No. 1122b/57; Church 3, Grave 505
2. Paired with Inv. No. 1122a/57; total number of gombíky in grave: 6; situation: below the chin/above the collarbones
3. Dimensions: 25.5 × 20.3 × 20.9-22.3 mm; material: gold
4. Sphere: a; attachment system: c; type: soldered decoration, ornament: two-layered
5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: adultus
6. Klanica et al. 2019, 94-95, 269; Kouřil ed. 2014, 436; Ottenwelter 2022, 165-167; inventory book 1957 (MInv 57-1_0174)



G 505

1. Inv. No. 1123a/57; Church 3, Grave 505
2. Paired with Inv. No. 1123b/57; total number of gombíky in grave: 6; situation: below the chin/above the collarbones
3. Dimensions: (loop is missing) × 18.3 × 22.2 mm; material: silver
4. Sphere: a; attachment system: -; type: soldered decoration, ornament: with bosses
5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: adultus
6. Klanica et al. 2019, 94-95, 269; inventory book 1957 (MInv 57-1_0174)



- G 505
1. Inv. No. 1123b/57; Church 3, Grave 505
 2. Paired with Inv. No. 1123a/57; total number of gombíky in grave: 6; situation: below the chin/above the collarbones
 3. Dimensions: (loop is missing) × 17.6 × 20.1 mm; material: silver
 4. Sphere: a; attachment system: -; type: soldered decoration, ornament: with bossess
 5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: adultus
 6. Klanica et al. 2019, 94-95, 269; inventory book 1957 (MInv 57-1_0174)



- G 505
1. Inv. No. 1124a/57; Church 3, Grave 505
 2. Paired with Inv. No. 1124b/57; total number of gombíky in grave: 6; situation: at the feet/on the east side of the left foot
 3. Dimensions: 32.1 × 25.3 × 25.2 mm; material: silver
 4. Sphere: a; attachment system: c; type: soldered decoration, ornament: full-surface granulation
 5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: adultus
 6. Klanica et al. 2019, 94-95, 269; Kouřil ed. 2014, 430; inventory book 1957 (MInv 57-1_0174)



- G 505
1. Inv. No. 1124b/57; Church 3, Grave 505
 2. Paired with Inv. No. 1124a/57; total number of gombíky in grave: 6; situation: at the feet/on the east side of the left foot
 3. Dimensions: 34.3 × 25.8 × 25.3 mm; material: silver
 4. Sphere: a; attachment system: c; type: soldered decoration, ornament: full-surface granulation
 5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: adultus
 6. Klanica et al. 2019, 94-95, 269; Ottenwelter 2022, 185-186; inventory book 1957 (MInv 57-1_0174)



- G 508
1. Inv. No. 1038a/57; Church 3, Grave 508
 2. Paired with Inv. No. 1038b/57; total number of gombíky in grave: 4; situation: on the right side of the neck/15 cm east of the chin
 3. Dimensions: (loop damaged) × 14.9 × 14.8 mm; material: gilded copper alloy
 4. Sphere: a; attachment system: b; type: chased decoration, ornament: zoomorphic, scheme: medallion
 5. Sex (anthropologically): -, gender (archaeologically): male; age-at-death: maturus?
 6. Klanica et al. 2019, 96, 271; Ottenwelter 2022, 174-175; inventory book 1957 (MInv 57-1_0158)



G 508

1. Inv. No. 1038b/57; Church 3, Grave 508
2. Paired with Inv. No. 1038a/57; total number of gombíky in grave: 4; situation: on the right side of the neck/15 cm east of the chin
3. Dimensions: (loop damaged) × 15.5 × 14.7 mm; material: gilded copper alloy
4. Sphere: a; attachment system: b; type: chased decoration, ornament: zoomorphic, scheme: medallion
5. Sex (anthropologically): -, gender (archaeologically): male; age-at-death: maturus?
6. Klanica et al. 2019, 96, 271; inventory book 1957 (MInv 57-1_0158)



G 508

1. Inv. No. 1037b/57; Church 3, Grave 508
2. Paired with Inv. No. 1037a/57; total number of gombíky in grave: 4; situation: on the left side of the neck/20 cm north of the chin
3. Dimensions: 24.5 × 17.0 × 17.7 mm; material: gilded copper alloy
4. Sphere: a; attachment system: a; type: chased decoration, ornament: zoomorphic, scheme: arcade
5. Sex (anthropologically): -, gender (archaeologically): male; age-at-death: maturus?
6. Klanica et al. 2019, 96, 271; Kouřil ed. 2014, 428; inventory book 1957 (MInv 57-1_0158)



G 508

1. Inv. No. 1037a/57; Church 3, Grave 508
2. Paired with Inv. No. 1037b/57; total number of gombíky in grave: 4; situation: on the left side of the neck/20 cm north of the chin
3. Dimensions: 23.5 × 16.9 × 17.5 mm; material: gilded copper alloy
4. Sphere: a; attachment system: a; type: chased decoration, ornament: zoomorphic, scheme: arcade
5. Sex (anthropologically): -, gender (archaeologically): male; age-at-death: maturus?
6. Klanica et al. 2019, 96, 271; inventory book 1957 (MInv 57-1_0158)



G 510

1. Inv. No. 1465b/57; Church 3, Grave 510; not preserved, without figure
2. Non-paired; total number of gombíky in grave: 1; situation: at the temples together with the earrings
3. Dimensions: -; material: -
4. Sphere: -; attachment system: -; type: -
5. Sex (anthropologically): female; age-at-death: 20-29
6. Klanica et al. 2019, 97; inventory book 1957 (MInv 57-1_0230)

G 512

1. Inv. No. 1434/57; Church 3, Grave 512; not preserved, without figure
2. Non-paired; total number of gombíky in grave: 3; situation: on the sides of the lower jaw
3. Dimensions: -; material: silver
4. Sphere: -; attachment system: -; type: undecorated?
5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: adult?
6. Klanica et al. 2019, 99, 273; inventory book 1957 (MInv 57-1_0226)

- G 512 **1. Inv. No. 1435/57; Church 3, Grave 512; not preserved, without figure**
 2. Paired with Inv. No. 3029/57; total number of gombíky in grave: 3;
 situation: on the sides of the lower jaw
 3. Dimensions: -; material: silver
 4. Sphere: -; attachment system: -; type: soldered decoration, ornament:
 with bosses?
 5. Sex (anthropologically): -, gender (archaeologically): female;
 age-at-death: adult?
 6. Klanica et al. 2019, 99, 273; inventory book 1957 (MInv 57-1_0226)

- G 512 **1. Inv. No. 3029/57; Church 3, Grave 512; not preserved, without figure**
 2. Paired with Inv. No. 1435/57; total number of gombíky in grave: 3;
 situation: on the sides of the lower jaw
 3. Dimensions: -; material: silver
 4. Sphere: -; attachment system: -; type: soldered decoration, ornament:
 with bosses?
 5. Sex (anthropologically): -, gender (archaeologically): female;
 age-at-death: adult?
 6. Klanica et al. 2019, 99, 273; inventory book 1957 (MInv 57-1_0505)

- G 522c **1. Inv. No. 1359/57; Church 3, Grave 522c; not preserved**
 2. Non-paired; total number of gombíky in grave: 1; situation: near the skull
 3. Dimensions: -; material: gilded silver?
 4. Sphere: -; attachment system: -; type: chased decoration, ornament:
 plant, scheme: -
 5. Sex (anthropologically): -, gender (archaeologically): female;
 age-at-death: infans I
 6. Klanica et al. 2019, 101, 275; inventory book 1957 (MInv 57-1_0214)



- G 525 **1. Inv. No. 1178/57; Church 3, Grave 525; not preserved**
 2. Non-paired; total number of gombíky in grave: 1; situation:
 above the right collarbone
 3. Dimensions: -; material: silver
 4. Sphere: -; attachment system: -; type: chased decoration, ornament:
 plant, scheme: -
 5. Sex (anthropologically): -; age-at-death: 5-9
 6. Klanica et al. 2019, 102, 276; inventory book 1957 (MInv 57-1_0184)



- G 531 **1. Inv. No. 1354a/57; Church 3, Grave 531**
 2. Paired with Inv. No. 1354b/57; total number of gombíky in grave: 2;
 situation: by the skull from the east side
 3. Dimensions: 21.4 × 15.4 × 13.9 mm; material: gilded copper alloy
 4. Sphere: a; attachment system: b; type: soldered decoration,
 ornament: filigree
 5. Sex (anthropologically): -; age-at-death: 1-4
 6. Klanica et al. 2019, 103, 277; inventory book 1957 (MInv 57-1_0213)



- G 531 **1. Inv. No. 1354b/57; Church 3, Grave 531**
 2. Paired with Inv. No. 1354a/57; total number of gombíky in grave: 2;
 situation: by the skull from the east side
 3. Dimensions: (loop damaged) × 13.8 × 13.9 mm; material: gilded copper alloy
 4. Sphere: a; attachment system: b; type: soldered decoration,
 ornament: filigree
 5. Sex (anthropologically): -; age-at-death: 1-4
 6. Klanica et al. 2019, 103, 277; inventory book 1957 (MInv 57-1_0213)



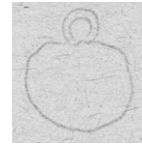
- G 540 **1. Inv. No. 1355/57; Church 3, Grave 540; not preserved**
 2. Non-paired; total number of gombíky in grave: 1; situation:
 to the right of the jaw
 3. Dimensions: -; material: gilded silver
 4. Sphere: -; attachment system: -; type: soldered decoration, ornament:
 sparse granulation
 5. Sex (anthropologically): -, gender (archaeologically): male;
 age-at-death: 5-9
 6. Klanica et al. 2019, 104, 278; inventory book 1957 (MInv 57-1_0214)



- G 544 **1. Inv. No. 1455/57; Church 3, Grave 544; not preserved**
 2. Non-paired; total number of gombíky in grave: 1; situation: under the pelvis
 3. Dimensions: -; material: gilded copper alloy?
 4. Sphere: -; attachment system: -; type: chased decoration, ornament: geometric, scheme: spirals
 5. Sex (anthropologically): male; age-at-death: 20-29
 6. Klanica et al. 2019, 105, 279; inventory book 1957 (MInv 57-1_0229)



- G 549 **1. Inv. No. 1356/57; Church 3, Grave 549; not preserved**
 2. Non-paired; total number of gombíky in grave: 1; situation: south of the upper jaw
 3. Dimensions: -; material: glass
 4. Sphere: not analysed; attachment system: not analysed; type: not analysed
 5. Sex (anthropologically): -; age-at-death: 1-4
 6. Klanica et al. 2019, 106, 281; inventory book 1957 (MInv 57-1_0214)



- G 550 **1. Inv. No. 1427/57; Church 3, Grave 550**
 2. Non-paired; total number of gombíky in grave: 2; situation: about 10 cm north of the skull
 3. Dimensions: -; material: silver
 4. Sphere: -; attachment system: b; type: chased decoration, ornament: zoomorphic, scheme: arcade
 5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: 1-4
 6. Klanica et al. 2019, 107, 281; inventory book 1957 (MInv 57-1_0225)



- G 550 **1. Inv. No. 1426/57; Church 3, Grave 550**
 2. Non-paired; total number of gombíky in grave: 2; situation: southeast of the chin
 3. Dimensions: 33.4 × 25.2 × 27.6 mm; material: gilded copper alloy
 4. Sphere: c; attachment system: a; type: chased decoration, ornament: plant, scheme: unclassified
 5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: 1-4
 6. Klanica et al. 2019, 107, 281; Kouřil ed. 2014, 425; Ottenwelter 2022, 172-173; inventory book 1957 (MInv 57-1_0225)



- G 553 **1. Inv. No. 1423/57; Church 3, Grave 553**
 2. Non-paired; total number of gombíky in grave: 3; situation: under the chin by the head / by the left temple
 3. Dimensions: (loop is missing) × 22.4 × 19.2 mm; material: silver
 4. Sphere: a; attachment system: -; type: chased decoration, ornament: plant, scheme: -
 5. Sex (anthropologically): male; age-at-death: adultus I
 6. Klanica et al. 2019, 108, 282; inventory book 1957 (MInv 57-1_0225)



- G 553 **1. Inv. No. 1422a/57; Church 3, Grave 553**
 2. Paired with Inv. No. 1422b/57; total number of gombíky in grave: 3;
 situation: under the chin
 3. Dimensions: 25.1 × 16.4 × 16.3–18.0 mm; material: gold
 4. Sphere: a; attachment system: c; type: soldered decoration, ornament:
 plant ornament + sparse granulation, scheme: net
 5. Sex (anthropologically): male; age-at-death: adultus I
 6. Klanica et al. 2019, 108, 282; inventory book 1957 (MInv 57-1_0225)



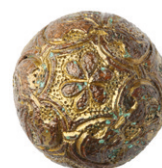
- G 553 **1. Inv. No. 1422b/57; Church 3, Grave 553**
 2. Paired with Inv. No. 1422a/57; total number of gombíky in grave: 3;
 situation: under the chin
 3. Dimensions: 25.8 × 16.7 × 16.3–17.8 mm; material: gold
 4. Sphere: a; attachment system: c; type: soldered decoration, ornament:
 plant ornament + sparse granulation, scheme: net
 5. Sex (anthropologically): male; age-at-death: adultus I
 6. Klanica et al. 2019, 108, 282; Kouřil ed. 2014, 434; inventory book 1957
 (MInv 57-1_0225)



- G 557 **1. Inv. No. 1352a/57; Church 3, Grave 557**
 2. Paired with Inv. No. 1352b/57; total number of gombíky in grave: 2;
 situation: by the right shoulder
 3. Dimensions: 23.0 × 16.9 × 20.6 mm; material: gilded copper alloy
 4. Sphere: b; attachment system: a; type: chased decoration, ornament:
 plant, scheme: cordate meander
 5. Sex (anthropologically): -, gender (archaeologically): male;
 age-at-death: 10–14
 6. Klanica et al. 2019, 110–111, 286; inventory book 1957 (MInv 57-1_0213)



- G 557 **1. Inv. No. 1352b/57; Church 3, Grave 557**
 2. Paired with Inv. No. 1352a/57; total number of gombíky in grave: 2;
 situation: 75 cm west of the skull
 3. Dimensions: 22.8 × 16.3 × 19.9 mm; material: gilded copper alloy
 4. Sphere: b; attachment system: a; type: chased decoration, ornament:
 plant, scheme: cordate meander
 5. Sex (anthropologically): -, gender (archaeologically): male;
 age-at-death: 10–14
 6. Klanica et al. 2019, 110–111, 286; inventory book 1957 (MInv 57-1_0213)



G 567

1. Inv. No. 1454/57; Church 3, Grave 567
2. Non-paired; total number of gombíky in grave: 2; situation: inside the right elbow
3. Dimensions: diameter 18.7 mm; material: copper alloy
4. Sphere: -; attachment system: b; type: chased decoration, ornament: plant, scheme: arcade
5. Sex (anthropologically): female; age-at-death: 30-59
6. Klanica et al. 2019, 114-115, 291; inventory book 1957 (MInv 57-1_0229)



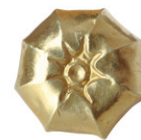
G 567

1. Inv. No. 1453a/57; Church 3, Grave 567
2. Non-paired; total number of gombíky in grave: 2; situation: near the left collarbone
3. Dimensions: 12.4 × 9.8 × 9.8 mm; material: silver
4. Sphere: a; attachment system: b; type: soldered decoration, ornament: full-surface granulation
5. Sex (anthropologically): female; age-at-death: 30-59
6. Klanica et al. 2019, 114-115, 291; Kouřil ed. 2014, 430; inventory book 1957 (MInv 57-1_0229)



G 580

1. Inv. No. 1616/57; Church 3, Grave 580
2. Non-paired; total number of gombíky in grave: 1; situation: skeleton not preserved, under a large flat stone at the bottom of the grave?
3. Dimensions: 20.8 × 13.2 × 17.3-18.4 mm; material: gold
4. Sphere: b; attachment system: b; type: chased decoration, ornament: -, scheme: vertical ribbing
5. Sex (anthropologically): -, gender (archaeologically): male; age-at-death: adult?
6. Klanica et al. 2019, 117-118, 295; Kouřil ed. 2014, 420; inventory book 1957 (MInv 57-1_0255)



G 586

1. Inv. No. 3032/57; Church 3, Grave 586; not preserved, without figure
2. Non-paired; total number of gombíky in grave: 2; situation: on both sides of the neck on the collarbones
3. Dimensions: -; material: silver
4. Sphere: -; attachment system: -; type: chased decoration, ornament: plant?, scheme: -
5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: infans I
6. Klanica et al. 2019, 122, 299; inventory book 1957 (MInv 57-1_0506)

G 586

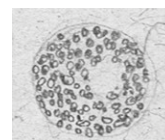
1. Inv. No. 3033/57; Church 3, Grave 586
2. Non-paired; total number of gombíky in grave: 2; situation: on both sides of the neck on the collarbones
3. Dimensions: -; material: silver
4. Sphere: -; attachment system: b; type: soldered decoration, ornament: 'poppyseed' granulation
5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: infans I
6. Klanica et al. 2019, 122, 299; inventory book 1957 (MInv 57-1_0506)



- G 590
1. Inv. No. 1993a/57; Church 3, Grave 590; not preserved
 2. Paired with Inv. No. 1993b/57; total number of gombíky in grave: 2; situation: along the north and south sides of the teeth
 3. Dimensions: -; material: silver
 4. Sphere: a; attachment system: -; type: soldered decoration, ornament: full-surface granulation
 5. Sex (anthropologically): -; age-at-death: infans I
 6. Klanica et al. 2019, 124, 301; inventory book 1957 (MInv 57-1_0311)



- G 590
1. Inv. No. 1993b/57; Church 3, Grave 590; not preserved
 2. Paired with Inv. No. 1993a/57; total number of gombíky in grave: 2; situation: along the north and south sides of the teeth
 3. Dimensions: -; material: silver
 4. Sphere: a; attachment system: -; type: soldered decoration, ornament: full-surface granulation
 5. Sex (anthropologically): -; age-at-death: infans I
 6. Klanica et al. 2019, 124, 301; inventory book 1957 (MInv 57-1_0311)



- G 625
1. Inv. No. 440a/58; Church 3, Grave 625
 2. Paired with Inv. No. 440b/58; total number of gombíky in grave: 2; situation: about 40 cm to the right behind the head
 3. Dimensions: 40.1 × 27.0 × 33.3 mm; material: gilded copper alloy
 4. Sphere: a; attachment system: a; type: chased decoration, ornament: plant, scheme: cordate meander
 5. Sex (anthropologically): female; age-at-death: 20-29
 6. Klanica et al. 2019, 129, 308; Ottenwelter 2022, 170-171; inventory book 1958 (MInv 58_0087)



- G 625
1. Inv. No. 440b/58; Church 3, Grave 625
 2. Paired with Inv. No. 440a/58; total number of gombíky in grave: 2; situation: about 40 cm to the right behind the head
 3. Dimensions: diameter 31.6 mm; material: gilded copper alloy
 4. Sphere: a; attachment system: a; type: chased decoration, ornament: plant, scheme: cordate meander
 5. Sex (anthropologically): female; age-at-death: 20-29
 6. Klanica et al. 2019, 129, 308; inventory book 1958 (MInv 58_0087)



G 662

1. Inv. No. 976a/58; Church 3, Grave 662
2. Paired with Inv. No. 976b/58; total number of gombíky in grave: 3; situation: 25 cm from the head on the left side
3. Dimensions: 33.9 × 22.5 × 28.6 mm; material: gilded copper alloy
4. Sphere: a; attachment system: a; type: chased decoration, ornament: plant, scheme: medallion
5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: 1-4
6. Klanica et al. 2019, 136, 318; Kouřil ed. 2014, 435; inventory book 1958 (MInv 58_0208)



G 662

1. Inv. No. 976b/58; Church 3, Grave 662
2. Paired with Inv. No. 976a/58; total number of gombíky in grave: 3; situation: 25 cm from the head on the left side
3. Dimensions: 33.3 × 22.2 × 28.6 mm; material: gilded copper alloy
4. Sphere: a; attachment system: a; type: chased decoration, ornament: plant, scheme: medallion
5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: 1-4
6. Klanica et al. 2019, 136, 318; inventory book 1958 (MInv 58_0208)



G 662

1. Inv. No. 978/58; Church 3, Grave 662; not preserved, without figure
2. Non-paired; total number of gombíky in grave: 3; situation: on the right side of the skull
3. Dimensions: -; material: silver
4. Sphere: -; attachment system: -; type: chased decoration, ornament: plant?, scheme: -
5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: 1-4
6. Klanica et al. 2019, 136, 318; inventory book 1958 (MInv 58_0208)

G 675

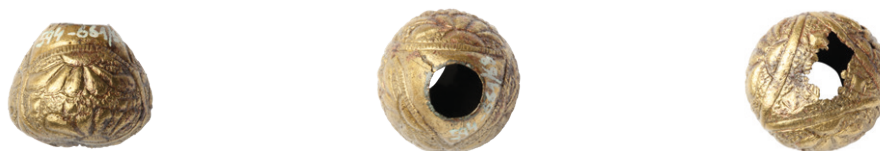
1. Inv. No. 1239/58; Church 3, Grave 675
2. Non-paired; total number of gombíky in grave: 1; situation: unknown
3. Dimensions: 22,3/16,3/19,0 mm; material: silver
4. Sphere: a; attachment system: a; type: chased decoration, ornament: zoomorphic, scheme: arcade
5. Sex (anthropologically): female; age-at-death: 15-19
6. Klanica et al. 2019, 139, 321; inventory book 1958 (MInv 58_0262)



- G 987
1. Inv. No. 660/68; Church 3, Grave 987
 2. Paired with Inv. No. 661/68; total number of gombíky in grave: 2; situation: near the left collarbone
 3. Dimensions: (loop is missing) × 15.2 × 18.2 mm; material: gilded copper alloy
 4. Sphere: b; attachment system: -; type: chased decoration, ornament: plant, scheme: medallion
 5. Sex (anthropologically): female; age-at-death: 30-59
 6. Klanica et al. 2019, 147, 332; inventory book 1968 (MInv 68-1_0162)



- G 987
1. Inv. No. 661/68; Church 3, Grave 987
 2. Paired with Inv. No. 660/68; total number of gombíky in grave: 2; situation: near the right collarbone
 3. Dimensions: (loop is missing) × 15.7 × 18.2 mm; material: gilded copper alloy
 4. Sphere: b; attachment system: -; type: chased decoration, ornament: plant, scheme: medallion
 5. Sex (anthropologically): female; age-at-death: 30-59
 6. Klanica et al. 2019, 147, 332; inventory book 1968 (MInv 68-1_0162)



- G 988
1. Inv. No. 662/68; Church 3, Grave 988
 2. Paired with Inv. No. 663/68; total number of gombíky in grave: 2; situation: by the left shoulder
 3. Dimensions: 25.9 × 17.6 × 19.2 mm; material: gilded copper alloy
 4. Sphere: a; attachment system: a; type: chased decoration, ornament: plant, scheme: arcade
 5. Sex (anthropologically): -; age-at-death: 10-14
 6. Klanica et al. 2019, 148, 333; inventory book 1968 (MInv 68-1_0163)

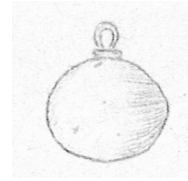


- G 988
1. Inv. No. 663/68; Church 3, Grave 988
 2. Paired with Inv. No. 662/68; total number of gombíky in grave: 2; situation: by the right shoulder
 3. Dimensions: (loop damaged) × 18.1 × 19.8 mm; material: gilded copper alloy
 4. Sphere: a; attachment system: a; type: chased decoration, ornament: plant, scheme: arcade
 5. Sex (anthropologically): -; age-at-death: 10-14
 6. Klanica et al. 2019, 148, 333; inventory book 1968 (MInv 68-1_0163)



G 1116

1. Inv. No. 932/70; Church 3, Grave 1116; not preserved
2. Non-paired; total number of gombíky in grave: 1; situation: on chest
3. Dimensions: -; material: gilded copper alloy
4. Sphere: a; attachment system: -; type: undecorated
5. Sex (anthropologically): -; age-at-death: 1-4
6. Klanica et al. 2019, 153; inventory book 1970 (MInv 70-1_0212)



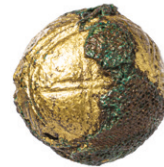
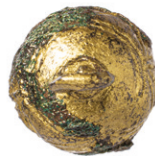
G 1182

1. Inv. No. 1046/70; Church 3, Grave 1182
2. Paired with Inv. No. 1047/70; total number of gombíky in grave: 2; situation: near the collarbones
3. Dimensions: 25.0 × 16.8 × 20.3 mm; material: gilded copper alloy
4. Sphere: a; attachment system: a; type: chased decoration, ornament: geometric, scheme: unclassified
5. Sex (anthropologically): female; age-at-death: 30-59
6. Klanica et al. 2019, 155, 340; inventory book 1970 (MInv 70-1_0241)



G 1182

1. Inv. No. 1047/70; Church 3, Grave 1182
2. Paired with Inv. No. 1046/70; total number of gombíky in grave: 2; situation: near the collarbones
3. Dimensions: 25.2 × 16.9 × 20.5 mm; material: gilded copper alloy
4. Sphere: a; attachment system: a; type: chased decoration, ornament: geometric, scheme: unclassified
5. Sex (anthropologically): female; age-at-death: 30-59
6. Klanica et al. 2019, 155, 340; inventory book 1970 (MInv 70-1_0241)



'PALACE'

- G 714 **1. Inv. No. 3012/58; 'Palace', Grave 714; not preserved, without figure**
 2. Paired with Inv. No. 3013/58?; total number of gombíky in grave: 2; situation: by the left shoulder blade
 3. Dimensions: -; material: silver
 4. Sphere: -; attachment system: -; type: -
 5. Sex (anthropologically): female; age-at-death: adultus?
 6. Unpublished; inventory book 1958 (MInv 58_0719)

- G 714 **1. Inv. No. 3013/58; 'Palace', Grave 714; not preserved, figure without scale**
 2. Paired with Inv. No. 3012/58?; total number of gombíky in grave: 2; situation: by the right shoulder blade
 3. Dimensions: -; material: silver
 4. Sphere: a; attachment system: b; type: chased decoration, ornament: zoomorphic, scheme: medallion
 5. Sex (anthropologically): female; age-at-death: adultus?
 6. Poulík 1975, 85, 265; inventory book 1958 (MInv 58_0719); archive photo M-FP-101102900



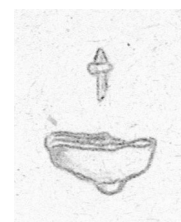
- G 780 **1. Inv. No. 415a/59; 'Palace', Grave 780**
 2. Paired with Inv. No. 415b/59; Total number of gombíky in grave: 2; situation: right and left of lower jaw (at neck level)
 3. Dimensions: 34.9 × 26.6 × 31.3 mm; material: silver
 4. Sphere: a; attachment system: a; type: chased decoration, ornament: plant, scheme: arcade
 5. Sex (anthropologically): female?; age-at-death: adultus II
 6. Kouríl ed. 2014, 425; inventory book 1959 (MInv 59-1_0094)



- G 780 **1. Inv. No. 415b/59; 'Palace', Grave 780**
 2. Paired with Inv. No. 415a/59; total number of gombíky in grave: 2; situation: right and left of lower jaw (at neck level)
 3. Dimensions: 36.2 × 26.8 × 31.5 mm; material: silver
 4. Sphere: a; attachment system: a; type: chased decoration, ornament: plant, scheme: arcade
 5. Sex (anthropologically): female?; age-at-death: adultus II
 6. Unpublished; inventory book 1959 (MInv 59-1_0094)



- G 1018 **1. Inv. No. 821/69; Z 1969-III (classified under 'Palace'), Grave 1018; not preserved**
 2. Non-paired; total number of gombíky in grave: 1; situation: 25 cm southwest of the skull
 3. Dimensions: -; material: gilded copper alloy
 4. Sphere: -; attachment system: -; type: -
 5. Sex (anthropologically): -; age-at-death: -
 6. Unpublished; inventory book 1969 (MInv 69-1_0188)



CHURCH 4

- G 10/IV **1. Inv. No. 380/59; Church 4, Grave 10/IV**
 2. Non-paired; total number of gombíky in grave: 1; situation: by the shoulder
 3. Dimensions: 27.1 × 19.4 × 24.6 - piece possibly missing; material: silver
 4. Sphere: b; attachment system: a; type: chased decoration, ornament: plant, scheme: arcade
 5. Sex (anthropologically): -; age-at-death: infans II
 6. Poláček et al. 2021, 129; inventory book 1959 (MInv 59-1_0089)



- G 36/IV **1. Inv. No. 2595/58; Church 4, Grave 36/IV**
 2. Non-paired; total number of gombíky in grave: 1; situation: by the vertebra
 3. Dimensions: 25.1 × 18.8 × 22.4 mm; material: gilded copper alloy
 4. Sphere: b; attachment system: a; type: chased decoration, ornament: plant, scheme: arcade
 5. Sex (anthropologically): -; age-at-death: infans I
 6. Unpublished

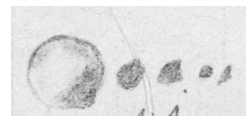


- G 64/IV **1. Inv. No. 4492/57; Church 4, Grave 64/IV**
 2. Non-paired; Total number of gombíky in grave: 1; situation: unknown
 3. Dimensions: 29.7 × 22.8 × 22.5 mm; material: silver
 4. Sphere: a; attachment system: b; type: chased decoration, ornament: zoomorphic, scheme: medallion
 5. Sex (anthropologically): -; age-at-death: infans II
 6. Poulík 1975, 93; Kohoutková 2008, 93-95; Poláček et al. 2021, 129; inventory book 1959 (MInv 57-2_0456)

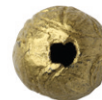


HYPOTHETICAL CHURCH 11

- G 807 **1. Inv. No. 810/65; hypothetical Church 11; Grave 807; not preserved**
 2. Non-paired; total number of gombíky in grave: 1; situation: among the ribs
 3. Dimensions: -; material: gilded copper alloy?
 4. Sphere: -; attachment system: -; type: -
 5. Sex (anthropologically): female; age-at-death: maturus I
 6. Unpublished; inventory book 1965 (MInv 65-1_0215)



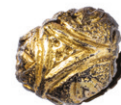
- G 816 **1. Inv. No. 4877/65; hypothetical Church 11, Grave 816**
 2. Non-paired; total number of gombíky in grave: 1; situation: unknown
 3. Dimensions: (loop damaged) × 11.9 × 12.4 mm; material: gilded copper alloy
 4. Sphere: a; attachment system: b; type: chased decoration, ornament: plant, scheme: medallion
 5. Sex (anthropologically): -; age-at-death: infans I
 6. Unpublished; inventory book 1965 (MInv 65-3_0484)



- G 820 **1. Inv. No. 4878/65; hypothetical Church 11, Grave 820**
 2. Paired with Inv. No. 4879/65; total number of gombíky in grave: 2; situation: under the chin
 3. Dimensions: 17.3 × 11.5 × 12.7 mm; material: gilded copper alloy
 4. Sphere: a; attachment system: b; type: chased decoration, ornament: plant, scheme: medallion
 5. Sex (anthropologically): male; age-at-death: maturus I
 6. Unpublished; inventory book 1965 (MInv 65-3_0484)



- G 820 **1. Inv. No. 4879/65; hypothetical Church 11, Grave 820**
 2. Paired with Inv. No. 4878/65; total number of gombíky in grave: 2; situation: under the chin
 3. Dimensions: 17.5 × 11.4 × 12.0 mm; material: gilded copper alloy
 4. Sphere: a; attachment system: b; type: chased decoration, ornament: plant, scheme: medallion
 5. Sex (anthropologically): male; age-at-death: maturus I
 6. Unpublished; inventory book 1965 (MInv 65-6_0485)



- G 827 **1. Inv. No. 4883/65; hypothetical Church 11, Grave 827**
 2. Non-paired; total number of gombíky in grave: 1; situation: unknown
 3. Dimensions: 21.2 × 15.6 × 15.1 mm; material: gilded silver?
 4. Sphere: a; attachment system: c; type: soldered decoration, ornament: 'poppyseed' granulation
 5. Sex (anthropologically): -; age-at-death: infans I
 6. Poláček et al. 2021, 130



- G 850 **1. Inv. No. 4880/65; hypothetical Church 11, Grave 850**
 2. Non-paired; total number of gombíky in grave: 1; situation: in the northeast corner of the grave pit
 3. Dimensions: (loop damaged) × 13.9 × 15.2 mm; material: gilded copper alloy
 4. Sphere: a; attachment system: -; type: chased decoration, ornament: plant, scheme: medallion
 5. Sex (anthropologically): male; age-at-death: adult
 6. Poláček et al. 2021, 130; inventory book 1965 (MInv 65-6_0485)



- G 876 **1. Inv. No. 566/66; hypothetical Church 11, Grave 876**
 2. Non-paired; total number of gombíky in grave: 1; situation: near the chin
 3. Dimensions: 39.5 × 31.4 × 26.6 mm; material: gilded copper alloy
 4. Sphere: a; attachment system: b; type: chased decoration, ornament: geometric, scheme: unclassified
 5. Sex (anthropologically): -; age-at-death: adultus 20-30
 6. Poláček et al. 2021, 130; inventory book 1966 (MInv 66-1_0219)



- G 881 **1. Inv. No. 591b/66; hypothetical Church 11, Grave 881; not preserved**
 2. Paired with Inv. No. 592b/66; total number of gombíky in grave: 2; situation: unknown
 3. Dimensions: -; material: glass
 4. Sphere: not analysed; attachment system: not analysed; type: not analysed
 5. Sex (anthropologically): -; age-at-death: infans I
 6. Unpublished; inventory book 1966 (MInv 66-1_0230)



- G 881 **1. Inv. No. 592b/66; hypothetical Church 11, Grave 881; not preserved**
 2. Paired with Inv. No. 591b/66; total number of gombíky in grave: 2; situation: unknown
 3. Dimensions: -; material: glass
 4. Sphere: not analysed; attachment system: not analysed; type: not analysed
 5. Sex (anthropologically): -; age-at-death: infans I
 6. Unpublished; inventory book 1966 (MInv 66-1_0230)



- G 889 **1. Inv. No. 658a/68; hypothetical Church 11, Grave 889; not preserved**
 2. Paired with Inv. No. 658b/68; total number of gombíky in grave: 2; situation: unknown
 3. Dimensions: -; material: gilded copper alloy
 4. Sphere: a; attachment system: a; type: soldered decoration, ornament: sparse granulation
 5. Sex (anthropologically): -; age-at-death: infans I
 6. Klanica 1970b, 123 (the drawing used comes from this source); inventory book 1968 (MInv 68-1_0161)



- G 889 **1. Inv. No. 658b/68; hypothetical Church 11, Grave 889; not preserved**
 2. Paired with Inv. No. 658a/68; total number of gombíky in grave: 2; situation: unknown
 3. Dimensions: -; material: gilded copper alloy
 4. Sphere: a; attachment system: a; type: soldered decoration, ornament: sparse granulation
 5. Sex (anthropologically): -; age-at-death: infans I
 6. Klanica 1970b, 123 (the drawing used comes this source); inventory book 1968 (MInv 68-1_0161)



- G 891 **1. Inv. No. 709/68; hypothetical Church 11, Grave 891; not preserved, probably a rattle**
2. Non-paired; total number of gombíky in grave: 1; situation: in the waist area
3. Dimensions: -; material: iron
4. Sphere: not analysed; attachment system: not analysed; type: not analysed
5. Sex (anthropologically): female; age-at-death: adult
6. Unpublished; inventory book 1965 (MInv 68-1_0175)



HYPOTHETICAL CHURCH 12

- G 1441 **1. Inv. No. 365/77; hypothetical Church 12, Grave 1441; not preserved**
 2. Non-paired; total number of gombíky in grave: 1; situation: on the right side of the skull
 3. Dimensions: loop diameter 6 mm; material: silver
 4. Sphere: -; attachment system: a; type: -
 5. Sex (anthropologically): female; age-at-death: 20-30
 6. Profantová, Kavánová 2003, 282-283, 330, 394; inventory book 1977 (MInv 77-1_0087)



-
- G 1489 **1. Inv. No. 256/79; hypothetical Church 12, Grave 1489**
 2. Paired with Inv. No. 257/79; total number of gombíky in grave: 2; situation: by the neck
 3. Dimensions: 17.7 × 12.7 × 15.1 mm; material: gilded copper alloy
 4. Sphere: a; attachment system: b; type: chased decoration, ornament: plant, scheme: arcade
 5. Sex (anthropologically): -; age-at-death: infans I
 6. Profantová, Kavánová 2003, 287, 315, 331, 401; inventory book 1979 (MInv 79-1_0066)



-
- G 1489 **1. Inv. No. 257/79; hypothetical Church 12, Grave 1489**
 2. Paired with Inv. No. 256/79; total number of gombíky in grave: 2; situation: by the neck
 3. Dimensions: 18.5 × 13.1 × 14.9 mm; material: gilded copper alloy
 4. Sphere: a; attachment system: b; type: chased decoration, ornament: plant, scheme: arcade
 5. Sex (anthropologically): -; age-at-death: infans I
 6. Profantová, Kavánová 2003, 287, 315, 331, 401; inventory book 1979 (MInv 79-1_0066)



-
- G 1494 **1. Inv. No. 3265/78, hypothetical Church 12, Grave 1494; not preserved**
 2. Paired with Inv. No. 2983/78; total number of gombíky in grave: 2; situation: under a group of bones of the head and upper chest
 3. Dimensions: -; material: glass
 4. Sphere: not analysed; attachment system: not analysed; type: not analysed
 5. Sex (anthropologically): -; age-at-death: infans I
 6. Profantová, Kavánová 2003, 257, 287, 325, 330, 402; inventory book 1978 (MInv 78-4_0501)



-
- G 1494 **1. Inv. No. 2983/78, hypothetical Church 12, Grave 1494; not preserved**
 2. Paired with Inv. No. 3265/78; total number of gombíky in grave: 2; situation: under a group of bones of the head and upper chest
 3. Dimensions: -; material: glass
 4. Sphere: not analysed; attachment system: not analysed; type: not analysed
 5. Sex (anthropologically): -; age-at-death: infans I
 6. Profantová, Kavánová 2003, 257, 287, 325, 330, 402; inventory book 1978 (MInv 78-4_0436)



- G 1526
1. Inv. No. 407/80; hypothetical Church 12, Grave 1526
 2. Non-paired; total number of gombíky in grave: 2; situation: under the right temporal bone
 3. Dimensions: 17.0 × 13.3 × 14.2 mm; material: gilded copper alloy
 4. Sphere: a; attachment system: b; type: soldered decoration, ornament: full-surface granulation
 5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: infans I
 6. Profantová, Kavánová 2003, 290, 325, 329, 330, 410; inventory book 1980 (MInv 80-1_0113)



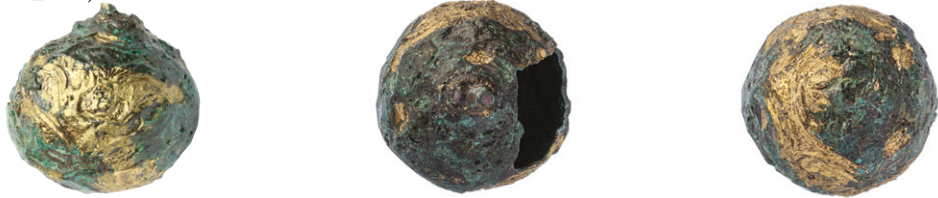
- G 1526
1. Inv. No. 407a/80; hypothetical Church 12, Grave 1526
 2. Non-paired; total number of gombíky in grave: 2; situation: under the right temporal bone
 3. Dimensions: 21.9 × 15.5 × 16.5 mm; material: gilded copper alloy
 4. Sphere: a; attachment system: b; type: chased decoration, ornament: geometric, scheme: spirals
 5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: infans I
 6. Profantová, Kavánová 2003, 290, 325, 329, 330, 410; inventory book 1980 (MInv 80-1_0113)



- G 1527
1. Without Inv. No., Find No. Z651/80; hypothetical Church 12, Grave 1527; not preserved, without figure
 2. Non-paired; total number of gombíky in grave: 1; situation: under the left collarbone
 3. Dimensions: -; material: glass
 4. Sphere: not analysed; attachment system: not analysed; type: not analysed
 5. Sex (anthropologically): -; age-at-death: 5-9
 6. Profantová, Kavánová 2003, 290-291, 325, 330

CHURCH 6

- G 1479 **1. Inv. No. 3270/78; Church 6, Grave 1479**
 2. Non-paired; total number of gombíky in grave: 1; situation: 10 cm from the skull
 3. Dimensions: (loop damaged) × 23.7 × 26.8 mm; material: gilded copper alloy
 4. Sphere: c?; attachment system: -; type: chased decoration, ornament: plant, scheme: cordate meander
 5. Sex (anthropologically): -; age-at-death: 5-9
 6. Profantová, Kavánová 2003, 38, 68-70, 71, 74, 77; inventory book 1978 (MInv 78-4_0501)



- G 42/VI **1. Inv. No. 571/60, re-identified; Church 6, Grave 42/VI**
 2. Non-paired; total number of gombíky in grave: 2; situation: at the right shoulder
 3. Dimensions: 29.3 × 19.0 × 23.9 mm; material: gilded copper alloy
 4. Sphere: a; attachment system: a; type: chased decoration, ornament: geometric, scheme: unclassified
 5. Sex (anthropologically): -; age-at-death: 5-9
 6. Profantová, Kavánová 2003, 68, 70, 74, 75, 77, 118; Krupičková et al. 2023, 85-86, 88-89; inventory book 1960 (MInv 60-1_0073)



- G 42/VI **1. Inv. No. 572/60; Church 6, Grave 42/VI**
 2. Non-paired; total number of gombíky in grave: 2; situation: at the right shoulder 2 cm further east
 3. Dimensions: 26.9 × 18.3 × 22.7 mm; material: gilded copper alloy
 4. Sphere: a; attachment system: a; type: chased decoration, ornament: geometric, scheme: unclassified
 5. Sex (anthropologically): -; age-at-death: 5-9
 6. Profantová, Kavánová 2003, 68, 70, 74, 75, 77, 118; inventory book 1960 (MInv 60-1_0073)



- G 43/VI **1. Inv. No. 573/60; Church 6, Grave 43/VI**
 2. Paired with Inv. No. 574/60; total number of gombíky in grave: 2; situation: just by the left temple
 3. Dimensions: 23.5 × 16.6 (damaged) × 19.6 mm; material: gilded copper alloy
 4. Sphere: b; attachment system: a; type: chased decoration, ornament: plant, scheme: arcade
 5. Sex (anthropologically): -, gender (archaeologically): male; age-at-death: 5-9
 6. Profantová, Kavánová 2003, 21, 71, 74; Ottenwelter 2022, 168-169; inventory book 1960 (MInv 60-1_0073)



- G 43/VI **1. Inv. No. 574/60; Church 6, Grave 43/VI**
 2. Paired with Inv. No. 573/60; total number of gombíky in grave: 2;
 situation: in the lower jaw
 3. Dimensions: 23.1 × 16.5 × 20.0 mm; material: gilded copper alloy
 4. Sphere: b; attachment system: a; type: chased decoration, ornament:
 plant, scheme: arcade
 5. Sex (anthropologically): -, gender (archaeologically): male;
 age-at-death: 5-9
 6. Profantová, Kavánová 2003, 21, 71, 74; inventory book 1960
 (MInv 60-1_0073)



- G 51/VI **1. Inv. No. 588/60; Church 6, Grave 51/VI**
 2. Paired with Inv. No. 589/60; total number of gombíky in grave: 2;
 situation: above the right collarbone
 3. Dimensions: 26.5 × 18.3 × 21.9 mm; material: silver
 4. Sphere: a; attachment system: a; type: chased decoration, ornament:
 plant, scheme: arcade
 5. Sex (anthropologically): -, gender (archaeologically): male;
 age-at-death: 1-4
 6. Profantová, Kavánová 2003, 22, 71, 74, 77, 121; inventory book 1960
 (MInv 60-1_0076)



- G 51/VI **1. Inv. No. 589/60; Church 6, Grave 51/VI; not preserved**
 2. Paired with Inv. No. 588/60; total number of gombíky in grave: 2;
 situation: in the cranial cavity
 3. Dimensions: -; material: silver
 4. Sphere: a; attachment system: a?; type: chased decoration, ornament:
 plant, scheme: arcade
 5. Sex (anthropologically): -, gender (archaeologically): male;
 age-at-death: 1-4
 6. Profantová, Kavánová 2003, 22, 71, 74, 77, 121 (the drawing used comes
 from this source); inventory book 1960 (MInv 60-1_0076)



- G 70/IV **1. Inv. No. 606/60; Church 6, Grave 70/VI**
 2. Paired with Inv. No. 607/60; total number of gombíky in grave: 4;
 situation: above the skeleton - approx. 5 cm
 3. Dimensions: 21.0 × 13.5 × 17.2 mm; material: gilded copper alloy
 4. Sphere: b; attachment system: a; type: chased decoration, ornament:
 plant, scheme: arcade
 5. Sex (anthropologically): -, gender (archaeologically): male;
 age-at-death: 1-4 (note: bones of another individual were discovered
 during the anthropological determination)
 6. Profantová, Kavánová 2003, 24, 68, 74, 77, 125; inventory book 1960
 (MInv 60-1_0078)



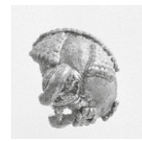
G 70/VI

1. Inv. No. 607/60; Church 6, Grave 70/VI
2. Paired with Inv. No. 606/60; total number of gombíky in grave: 4; situation: under the lower jaw
3. Dimensions: 21.3 × 13.9 × 17.4 mm; material: gilded copper alloy
4. Sphere: b; attachment system: a; type: chased decoration, ornament: plant, scheme: arcade
5. Sex (anthropologically): -, gender (archaeologically): male; age-at-death: 1-4 (note: bones of another individual were discovered during the anthropological determination)
6. Profantová, Kavánová 2003, 24, 68, 74, 77, 125; inventory book 1960 (MInv 60-1_0078)



G 70/VI

1. Inv. No. 610/60; Church 6, Grave 70/VI; not preserved, figure without scale
2. Paired with Inv. No. 611/60; total number of gombíky in grave: 4; situation: on the right side of the pelvic bone
3. Dimensions: -; material: silver
4. Sphere: -; attachment system: -; type: soldered decoration, ornament: 'poppyseed' granulation
5. Sex (anthropologically): -, gender (archaeologically): male; age-at-death: 1-4 (note: bones of another individual were discovered during the anthropological determination)
6. Profantová, Kavánová 2003, 24, 68, 72, 77, 125; inventory book 1960 (MInv 60-1_0079); archive photo M-FP-100977300



G 70/VI

1. Inv. No. 611/60; Church 6, Grave 70/VI; not preserved, figure without scale
2. Paired with Inv. No. 610/60; total number of gombíky in grave: 4; situation: on the right side of the pelvic bone
3. Dimensions: -; material: silver
4. Sphere: -; attachment system: -; type: soldered decoration, ornament: 'poppyseed' granulation
5. Sex (anthropologically): -, gender (archaeologically): male; age-at-death: 1-4 (note: bones of another individual were discovered during the anthropological determination)
6. Profantová, Kavánová 2003, 24, 68, 72, 77, 125; inventory book 1960 (MInv 60-1_0079); archive photo M-FP-100977300



G 76/VI

1. Inv. No. 623/60; Church 6, Grave 76/VI; not preserved, figure without scale
2. Paired with Inv. No. 624/60; Total number of gombíky in grave: 2; situation: below the right collarbone
3. Dimensions: -; material: gilded copper alloy
4. Sphere: a; attachment system: b; type: chased decoration, ornament: -, scheme: vertical ribbing
5. Sex (anthropologically): -; age-at-death: 5-9
6. Profantová, Kavánová 2003, 25, 68, 70, 76, 77, 127; inventory book 1960 (MInv 60-1_0080); archive photo M-FP-100986600



G 76/VI

1. Inv. No. 624/60; Church 6, Grave 76/VI; not preserved, figure without scale
2. Paired with Inv. No. 623/60; total number of gombíky in grave: 2; situation: in the mouth
3. Dimensions: -; material: gilded copper alloy
4. Sphere: a; attachment system: b; type: chased decoration, ornament: -, scheme: vertical ribbing
5. Sex (anthropologically): -; age-at-death: 5-9
6. Profantová, Kavánová 2003, 25, 68, 70, 76, 77, 127; inventory book 1960 (MInv 60-1_0080); archive photo M-FP-100986600



- G 77/VI **1. Inv. No. 625/60; Church 6, Grave 77/VI**
 2. Paired with Inv. No. 626/60; total number of gombíky in grave: 2; situation: in the mouth
 3. Dimensions: 29.1 × 22.0 × 22.3 mm; material: gilded copper alloy
 4. Sphere: a; attachment system: b; type: soldered decoration, ornament: full-surface granulation
 5. Sex (anthropologically): -; age-at-death: 5-9 (note: bones of another individual were discovered during the anthropological determination)
 6. Profantová, Kavánová 2003, 25, 70, 72, 77, 127; inventory book 1960 (MInv 60-1_0080)



- G 77/VI **1. Inv. No. 626/60; Church 6, Grave 77/VI**
 2. Paired with Inv. No. 625/60; total number of gombíky in grave: 2; situation: under the left cheek
 3. Dimensions: 27.2 × 20.7 × 21.7 mm; material: gilded copper alloy
 4. Sphere: a; attachment system: b; type: soldered decoration, ornament: full-surface granulation
 5. Sex (anthropologically): -; age-at-death: 5-9 (note: bones of another individual were discovered during the anthropological determination)
 6. Profantová, Kavánová 2003, 25, 70, 72, 77, 127; inventory book 1960 (MInv 60-1_0080)



- G 94/VI **1. Inv. No. 644/60; Church 6, Grave 94/VI**
 2. Non-paired; total number of gombíky in grave: 1; situation: under the skull on the inside of the upper jaw
 3. Dimensions: 25.7 × 17.8 × 19.7 mm; material: gilded copper alloy
 4. Sphere: a; attachment system: c; type: chased decoration, ornament: zoomorphic, scheme: medallion
 5. Sex (anthropologically): -; age-at-death: 1-4
 6. Profantová, Kavánová 2003, 27, 70, 74, 138; inventory book 1960 (MInv 60-1_0083)



- G 100/VI **1. Inv. No. 654/60; Church 6, Grave 100/VI**
 2. Non paired; total number of gombíky in grave: 1; situation: below the right collarbone
 3. Dimensions: (loop is missing) × 15.4 × 19.7 mm; material: silver
 4. Sphere: a; attachment system: -; type: soldered decoration, ornament: with bosses
 5. Sex (anthropologically): male?, gender (archaeologically): male; age-at-death: 15-19
 6. Profantová, Kavánová 2003, 27, 72, 133; inventory book 1960 (MInv 60-1_0084)



G 118/VI

1. Inv. No. 664/60; Church 6, Grave 118/VI
2. Paired with Inv. No. 665/60; total number of gombíky in grave: 6; situation: in the fragments of the skull
3. Dimensions: 29.9 × 23.5 × 25.8 mm; material: gilded copper alloy
4. Sphere: a; attachment system: a; type: soldered decoration, ornament: with bosses
5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: 1-4
6. Profantová, Kavánová 2003, 30, 70, 72, 141; Kouřil ed. 2014, 433; inventory book 1960 (MInv 60-1_0085)



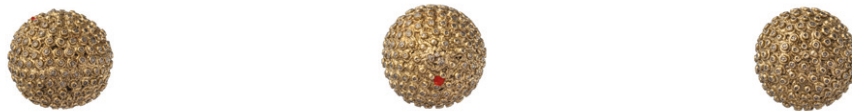
G 118/VI

1. Inv. No. 665/60; Church 6, Grave 118/VI
2. Paired with Inv. No. 664/60; total number of gombíky in grave: 6; situation: in the fragments of the skull
3. Dimensions: 30.1 × 22.7 × 26.4 mm; material: gilded copper alloy
4. Sphere: a; attachment system: a; type: soldered decoration, ornament: with bosses
5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: 1-4
6. Profantová, Kavánová 2003, 30, 70, 72, 141; inventory book 1960 (MInv 60-1_0086)



G 118/VI

1. Inv. No. 666/60; Church 6, Grave 118/VI
2. Paired with Inv. No. 667/60?; total number of gombíky in grave: 6; situation: in the fragments of the skull
3. Dimensions: (loop damaged) × 12.8 × 13.8 mm; material: silver
4. Sphere: a; attachment system: a?; type: soldered decoration, ornament: full-surface granulation
5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: 1-4
6. Profantová, Kavánová 2003, 30, 70, 72, 141; inventory book 1960 (MInv 60-1_0086)



G 118/VI

1. Inv. No. 667/60; Church 6, Grave 118/VI
2. Paired with Inv. No. 666/60?; total number of gombíky in grave: 6; situation: in the fragments of the skull
3. Dimensions: 15.8 × 11.8 × 13.1 mm; material: silver
4. Sphere: a; attachment system: a; type: soldered decoration, ornament: full-surface granulation
5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: 1-4
6. Profantová, Kavánová 2003, 30, 70, 72, 141; Kouřil ed. 2014, 430; inventory book 1960 (MInv 60-1_0086)



- G 118/VI **1. Inv. No. 668/60; Church 6, Grave 118/VI**
 2. Paired with Inv. No. 669/60; total number of gombíky in grave: 6;
 situation: in the fragments of the skull
 3. Dimensions: 29.8 × 22.8 × 25.5 mm; material: gilded copper alloy
 4. Sphere: c; attachment system: b; type: chased decoration, ornament:
 plant, scheme: arcade
 5. Sex (anthropologically): -, gender (archaeologically): female;
 age-at-death: 1-4
 6. Profantová, Kavánová 2003, 30, 70, 72, 74, 141; inventory book 1960
 (MInv 60-1_0086)



- G 118/VI **1. Inv. No. 669/60; Church 6, Grave 118/VI**
 2. Paired with Inv. No. 668/60; total number of gombíky in grave: 6;
 situation: in the fragments of the skull
 3. Dimensions: (loop damaged) × 21.8 × 25.2 mm; material: gilded copper alloy
 4. Sphere: c; attachment system: b; type: chased decoration, ornament:
 plant, scheme: arcade
 5. Sex (anthropologically): -, gender (archaeologically): female;
 age-at-death: 1-4
 6. Profantová, Kavánová 2003, 30, 70, 72, 74, 141; inventory book 1960
 (MInv 60-1_0086)



- G 160/VI **1. Inv. No. 720/60; Church 6, Grave 160/VI**
 2. Non-paired; total number of gombíky in grave: 1; situation: in the
 lower jaw
 3. Dimensions: (loop is missing) × 18.8 × 21.4 mm; material: silver
 4. Sphere: a; attachment system: -; type: soldered decoration, ornament:
 with bosses
 5. Sex (anthropologically): -, gender (archaeologically): female;
 age-at-death: 5-9
 6. Profantová, Kavánová 2003, 34, 70, 151; inventory book 1960
 (MInv 60-1_0093)



- G 161/VI **1. Inv. No. 723/60; Church 6, Grave 161/VI**
 2. Non-paired; total number of gombíky in grave: 1; situation: at the inner part of the left humerus
 3. Dimensions: 23.8 × 17.5 × 19.4 mm; material: silver
 4. Sphere: a; attachment system: b; type: chased decoration, ornament: -, scheme: vertical ribbing
 5. Sex (anthropologically): -; age-at-death: 5-9
 6. Profantová, Kavánová 2003, 34, 71, 152; Kouřil ed. 2014, 421; inventory book 1960 (MInv 60-1_0093)



- G 166/VI **1. Inv. No. 728/60; Church 6, Grave 166/VI; not preserved**
 2. Non-paired; total number of gombíky in grave: 1; situation: between the ribs on the left side
 3. Dimensions: diameter 15 mm; material: glass
 4. Sphere: not analysed; attachment system: not analysed; type: not analysed
 5. Sex (anthropologically): -; age-at-death: newborn?
 6. Profantová, Kavánová 2003, 35, 70, 76, 77, 152 (the drawing used comes from this source); inventory book 1960 (MInv 60-1_0094)



- G 178/VI **1. Inv. No. 733/60; Church 6, Grave 178/VI**
 2. Paired with Inv. No. 734/60; total number of gombíky in grave: 2; situation: below the right collarbone
 3. Dimensions: 28.1 × 19.6 × 22.3 mm; material: gilded copper alloy
 4. Sphere: a; attachment system: a; type: chased decoration, ornament: plant, scheme: unclassified
 5. Sex (anthropologically): -; age-at-death: 1-4
 6. Profantová, Kavánová 2003, 36, 70, 74, 77, 155; inventory book 1960 (MInv 60-1_0094)



- G 178/VI **1. Inv. No. 734/60; Church 6, Grave 178/VI**
 2. Paired with Inv. No. 733/60; total number of gombíky in grave: 2; situation: in the fill of the grave approx. 15 cm above the skeleton
 3. Dimensions: 28.7 × 19.7 × 23.0 mm; material: gilded copper alloy
 4. Sphere: a; attachment system: a; type: chased decoration, ornament: plant, scheme: unclassified
 5. Sex (anthropologically): -; age-at-death: 1-4
 6. Profantová, Kavánová 2003, 36, 70, 74, 77, 155; inventory book 1960 (MInv 60-1_0094)



- G 183/VI **1. Inv. No. 743/60; Church 6, Grave 183/VI**
2. Non-paired; total number of gombíky in grave: 1; situation:
at the right shoulder blade
3. Dimensions: (loop damaged) × 11.1 × 15.2 mm; material: gilded silver?
4. Sphere: b; attachment system: a; type: chased decoration, ornament:
plant, scheme: arcade
5. Sex (anthropologically): female; age-at-death: 20-29
6. Profantová, Kavánová 2003, 37, 74, 156; inventory book 1960
(MInv 60-1_0096)



- G 190/VI **1. Inv. No. 748/60; Church 6, Grave 190/VI**
2. Non-paired; total number of gombíky in grave: 1; situation:
in the right part of the chest
3. Dimensions: 25.6 × 19.2 × 22.7 mm; material: gilded copper alloy
4. Sphere: c; attachment system: a; type: chased decoration, ornament:
plant, scheme: cordate meander
5. Sex (anthropologically): -; age-at-death: 1-4
6. Profantová, Kavánová 2003, 37-38, 74, 77, 157; inventory book 1960
(MInv 60-1_0096)



CHURCH 7

- G 11/VII **1. Inv. No. 72/61; Church 7, Grave 11/VII**
 2. Paired with Inv. No. 73/61; total number of gombíky in grave: 2; situation: above the right collarbone
 3. Dimensions: 40.0 × 29.2 × 34.0 mm; material: silver
 4. Sphere: a; attachment system: a; type: chased decoration, ornament: plant, scheme: arcade
 5. Sex (anthropologically): -; age-at-death: -
 6. Kouřil 2010, 60; inventory book 1961 (MInv 61-1_0011)



- G 11/VII **1. Inv. No. 73/61; Church 7, Grave 11/VII**
 2. Paired with Inv. No. 72/61; total number of gombíky in grave: 2; situation: under the left part of the skull
 3. Dimensions: 39.9 × 29.9 × 34.9 mm; material: silver
 4. Sphere: a; attachment system: a; type: chased decoration, ornament: plant, scheme: arcade
 5. Sex (anthropologically): -; age-at-death: -
 6. Kouřil 2010, 60; inventory book 1961 (MInv 61-1_0011)



- G 16/II **1. Inv. No. 74/61; Church 7, Grave 16/VII; not preserved**
 2. Non-paired; total number of gombíky in grave: 1; situation: under the skull
 3. Dimensions: -; material: silver
 4. Sphere: -; attachment system: -; type: -
 5. Sex (anthropologically): -; age-at-death: -
 6. Kouřil 2010, 60; inventory book 1961 (MInv 61-1_0012)



CHURCH 8

- G 10/VIII **1. Inv. No. 203/61; Church 8, Grave 10/VIII; not preserved, figure without scale**
 2. Paired with Inv. No. 204/61; total number of gombíky in grave: 4; situation: all artefacts in the place of the left palm, as if originally being grasped
 3. Dimensions: -; material: gilded copper alloy
 4. Sphere: a; attachment system: -; type: undecorated
 5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: infans I
 6. Kouřil 2008, 71-73 (the drawing used comes from this source); inventory book 1961 (MInv 61-1_0060)



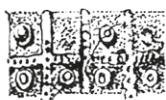
- G 10/VIII **1. Inv. No. 204/61; Church 8, Grave 10/VIII; not preserved, figure without scale**
 2. Paired with Inv. No. 203/61; total number of gombíky in grave: 4; situation: all artefacts in the place of the left palm, as if originally being grasped
 3. Dimensions: -; material: gilded copper alloy
 4. Sphere: a; attachment system: -; type: undecorated
 5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: infans I
 6. Kouřil 2008, 71-73 (the drawing used comes from this source); inventory book 1961 (MInv 61-1_0060)



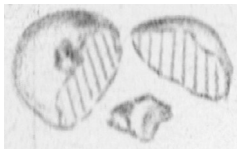

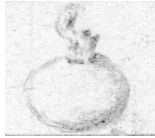


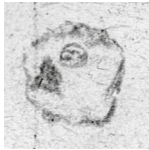
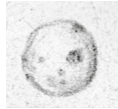

- G 10/VIII **1. Inv. No. 205/61; Church 8, Grave 10/VIII; not preserved, figure without scale**
 2. Non-paired; total number of gombíky in grave: 4; situation: all artefacts in the place of the left palm, as if originally being grasped
 3. Dimensions: -; material: gilded copper alloy
 4. Sphere: a; attachment system: -; type: soldered decoration, ornament: full-surface granulation
 5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: infans I
 6. Kouřil 2008, 71-73 (the drawing used comes from this source); inventory book 1961 (MInv 61-1_0060)



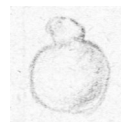
- G 10/VIII **1. Inv. No. 206/61; Church 8, Grave 10/VIII; not preserved, figure without scale**
 2. Non-paired; total number of gombíky in grave: 4; situation: all artefacts in the place of the left palm, as if originally being grasped
 3. Dimensions: width 10 mm; material: lead
 4. Sphere: not analysed; attachment system: not analysed; type: not analysed
 5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: infans I
 6. Kouřil 2008, 71-73 (the drawing used comes this source); inventory book 1961 (MInv 61-1_0060)



CHURCH 9

G 14/IX	<p>1. Inv. No. 14677/62; Church 9, Grave 14/IX; not preserved 2. Non-paired; total number of gombíky in grave: 1; situation: unknown 3. Dimensions: -; material: glass 4. Sphere: not analysed; attachment system: not analysed; type: not analysed 5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: infans I 6. Měřínský 2005, 128; inventory book 1962 (MInv 62-18_0623)</p>	
G 91/IX	<p>1. Inv. No. 14711/62; Church 9, Grave 91/IX; not preserved 2. Paired?; total number of gombíky in grave: 4; situation: unknown 3. Dimensions: diameter 19 mm; material: glass 4. Sphere: not analysed; attachment system: not analysed; type: not analysed 5. Sex (anthropologically): -, gender (archaeologically): two female individuals; age-at-death: infans II (both) 6. Měřínský 2005, 127-128; inventory book 1962 (MInv 62-18_0630)</p>	
G 91/IX	<p>1. Inv. No. 14712/62; Church 9, Grave 91/IX; not preserved 2. Paired?; total number of gombíky in grave: 4; situation: unknown 3. Dimensions: diameter 15 mm; material: glass 4. Sphere: not analysed; attachment system: not analysed; type: not analysed 5. Sex (anthropologically): -, gender (archaeologically): two female individuals; age-at-death: infans II (both) 6. Měřínský 2005, 127-128; inventory book 1962 (MInv 62-18_0630)</p>	
G 91/IX	<p>1. Inv. No. 14713/62; Church 9, Grave 91/IX; not preserved 2. Paired?; total number of gombíky in grave: 4; situation: unknown 3. Dimensions: diameter 17 mm; material: glass 4. Sphere: not analysed; attachment system: not analysed; type: not analysed 5. Sex (anthropologically): -, gender (archaeologically): two female individuals; age-at-death: infans II (both) 6. Měřínský 2005, 127-128; inventory book 1962 (MInv 62-18_0630)</p>	
G 91/IX	<p>1. Inv. No. 14714/62; Church 9, Grave 91/IX; not preserved 2. Paired?; total number of gombíky in grave: 4; situation: unknown 3. Dimensions: diameter 13 mm; material: glass 4. Sphere: not analysed; attachment system: not analysed; type: not analysed 5. Sex (anthropologically): -, gender (archaeologically): two female individuals; age-at-death: infans II (both) 6. Měřínský 2005, 127-128; inventory book 1962 (MInv 62-18_0630)</p>	
G 92/IX	<p>1. Inv. No. 14720/62; Church 9, Grave 92/IX; not preserved 2. Unpaired; total number of gombíky in grave: 1; situation: unknown 3. Dimensions: fragment of 1.4 cm in diameter; material: gilded silver 4. Sphere: -; attachment system: -; type: chased decoration, ornament: -, scheme: - 5. Sex (anthropologically): -; age-at-death: infans I 6. Měřínský 2005, 128; inventory book 1962 (MInv 62-9_0631)</p>	
G 126/IX	<p>1. Inv. No. 14749/62; Church 9, Grave 126/IX; not preserved 2. Paired with Inv. No. 14750/62; total number of gombíky in grave: 2; situation: unknown 3. Dimensions: -; material: silver 4. Sphere: a; attachment system: -; type: soldered decoration, ornament: 'poppyseed' granulation 5. Sex (anthropologically): -; age-at-death: infans I 6. Měřínský 2005, 128; inventory book 1962 (MInv 62-9_0641)</p>	
G 126/IX	<p>1. Inv. No. 14750/62; Church 9, Grave 126/IX; not preserved 2. Paired with Inv. No. 14749/62; total number of gombíky in grave: 2; situation: unknown 3. Dimensions: -; material: silver 4. Sphere: a; attachment system: -; type: soldered decoration, ornament: 'poppyseed' granulation 5. Sex (anthropologically): -; age-at-death: infans I 6. Měřínský 2005, 128; inventory book 1962 (MInv 62-9_0641)</p>	




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- G 128/IX **1. Inv. No. 14752/62; Church 9, Grave 128/IX; not preserved**
2. Non-paired; total number of gombíky in grave: 1; situation: unknown
3. Dimensions: diameter 9 mm; material: glass
4. Sphere: not analysed; attachment system: not analysed; type: not analysed
5. Sex (anthropologically): male; age-at-death: maturus I
6. Měřinský 2005, 128; inventory book 1962 (MInv 62-9_0642)



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- G 136/IX **1. Inv. No. 14754/62; Church 9, Grave 136/IX; not preserved**
2. Non-paired; total number of gombíky in grave: 1; situation: unknown
3. Dimensions: preserved length 23 mm; material: gilded copper alloy
4. Sphere: -; Attachment system: -; type: chased decoration, ornament: plant, scheme: net
5. Sex (anthropologically): male; age-at-death: maturus I
6. Měřinský 2005, 128; inventory book 1962 (MInv 62-9_0642)



KLÁŠTEŘISKO

G 1076	<p>1. Inv. No. 1365/69; Klášteřisko, Grave 1076; not preserved 2. Non-paired; total number of gombíky in grave: 1; situation: on left shoulder/chest 3. Dimensions: -; material: glass 4. Sphere: not analysed; attachment system: not analysed; type: not analysed 5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: infans II 6. Klanica 1985, 484, 520, 531, obr. 12: 10; inventory book 1969 (MInv 69-1_0313)</p>	
G 1081b	<p>1. Inv. No. 1380/69; Klášteřisko, Grave 1081b; not preserved 2. Paired with Inv. No. 1381/69; total number of gombíky in grave: 2; situation: near the chin 3. Dimensions: -; material: gilded copper alloy 4. Sphere: a; attachment system: -; type: soldered decoration, ornament: filigree rings 5. Sex (anthropologically): -; age-at-death: infans II 6. Klanica 1985, 502, 531, obr. 12: 19; inventory book 1969 (MInv 69-1_0317)</p>	
G 1081b	<p>1. Inv. No. 1381/69; Klášteřisko, Grave 1081b; not preserved 2. Paired with Inv. No. 1380/69; total number of gombíky in grave: 2; situation: near the chin 3. Dimensions: -; material: gilded copper alloy 4. Sphere: a; attachment system: -; type: soldered decoration, ornament: filigree rings 5. Sex (anthropologically): -; age-at-death: infans II 6. Klanica 1985, 502, 531, obr. 12: 20; inventory book 1969 (MInv 69-1_0317)</p>	
G 1154	<p>1. Inv. No. 980/70; Klášteřisko, Grave 1154; not preserved 2. Non-paired; total number of gombíky in grave: 1; situation: in the mouth 3. Dimensions: -; material: glass 4. Sphere: not analysed; attachment system: not analysed; type: not analysed 5. Sex (anthropologically): -; age-at-death: infans I 6. Klanica 1985, 507, 531, obr. 15: 4; inventory book 1970 (MInv 70-1_0226)</p>	
G 1177b	<p>1. Inv. No. 1026/70; Klášteřisko, Grave 1177b; not preserved 2. Paired with Inv. No. 1030/70; total number of gombíky in grave: 3; situation: unknown 3. Dimensions: -; material: glass 4. Sphere: not analysed; attachment system: not analysed; type: not analysed 5. Sex (anthropologically): -; age-at-death: infans I 6. Klanica 1985, 508, 531, obr. 16: 18; inventory book 1970 (MInv 70-1_0237)</p>	
G 1177b	<p>1. Inv. No. 1030/70; Klášteřisko, Grave 1177b; not preserved 2. Paired with Inv. No. 1026/70; total number of gombíky in grave: 3; situation: unknown 3. Dimensions: -; material: glass 4. Sphere: not analysed; attachment system: not analysed; type: not analysed 5. Sex (anthropologically): -; age-at-death: infans I 6. Klanica 1985, 508, 531, obr. 16: 17; inventory book 1970 (MInv 70-1_0238)</p>	
G 1177b	<p>1. Inv. No. 1031/70; Klášteřisko, Grave 1177b; not preserved 2. Non-paired; total number of gombíky in grave: 3; situation: unknown 3. Dimensions: -; material: copper alloy 4. Sphere: -; attachment system: -; type: chased decoration?, ornament: -, scheme: - 5. Sex (anthropologically): -; age-at-death: infans I 6. Klanica 1985, 508, 531, obr. 16: 19; inventory book 1970 (MInv 70-1_0238)</p>	

- G 1243 **1. Inv. No. 1046/71; Klášteřiřsko, Grave 1243; not preserved**
 2. Paired with Inv. No. 1047/71; total number of gombíky in grave: 2;
 situation: under skull fragments
 3. Dimensions: -; material: gilded copper alloy
 4. Sphere: a; attachment system: -; type: soldered decoration, ornament:
 filigree rings
 5. Sex (anthropologically): -, gender (archeologically): female; age-at-death: -
 6. Klanica 1985, 509, 531, obr. 18: 2; inventory book 1971 (MInv 71-1_0243)



- G 1243 **1. Inv. No. 1047/71; Klášteřiřsko, Grave 1243; not preserved**
 2. Paired with Inv. No. 1046/71; total number of gombíky in grave: 2;
 situation: under skull fragments
 3. Dimensions: -; material: gilded copper alloy
 4. Sphere: a; attachment system: -; type: soldered decoration, ornament:
 filigree rings
 5. Sex (anthropologically): -, gender (archeologically): female; age-at-death: -
 6. Klanica 1985, 509, 531, obr. 18: 1; inventory book 1971 (MInv 71-1_0243)



- G 1314 **1. Inv. No. 3178/75; Klášteřiřsko, Grave 1314**
 2. Paired with Inv. No. 3179/75; total number of gombíky in grave: 2;
 situation: on the left temple
 3. Dimensions: 38.8 × 30.0 × 35.9 mm; material: silver
 4. Sphere: b; attachment system: a; type: chased decoration, ornament:
 zoomorphic, scheme: net
 5. Sex (anthropologically): -, gender (archaeologically): female;
 age-at-death: infans II
 6. Klanica 1985, 510, 531, 532, obr. 21: 14; Kouřil ed. 2014, 423; inventory
 book 1975 (MInv 75-2_0354)



- G 1314 **1. Inv. No. 3179/75; Klášteřiřsko, Grave 1314**
 2. Paired with Inv. No. 3178/75; total number of gombíky in grave: 2;
 situation: in the fill of the grave
 3. Dimensions: 39.1 × 30.4 × 36.3 mm; material: silver
 4. Sphere: b; attachment system: a; type: chased decoration, ornament:
 zoomorphic, scheme: net
 5. Sex (anthropologically): -, gender (archaeologically): female;
 age-at-death: infans II
 6. Klanica 1985, 510, 531, 532, obr. 21: 15; Ottenwelter 2022, 177-178;
 inventory book 1975 (MInv 75-2_0354)



G 1335

1. Inv. No. 3180/75; Klášteřisko, Grave 1335
2. Paired with Inv. No. 3181/75; total number of gombíky in grave: 2; situation: in the place of the right ear/at the skull
3. Dimensions: 27.1 × 19.2 × 21.9 mm; material: gilded copper alloy
4. Sphere: a; attachment system: a; type: chased decoration, ornament: plant, scheme: arcade
5. Sex (anthropologically): -; age-at-death: infans I
6. Klanica 1985, 513, 531, 532, obr. 21: 19; inventory book 1975 (MInv 75-2_0354)



G 1335

1. Inv. No. 3181/75; Klášteřisko, Grave 1335
2. Paired with Inv. No. 3180/75; total number of gombíky in grave: 2; situation: in the place of the right ear/at the skull
3. Dimensions: 26.2 × 18.6 × 21.8 mm; material: gilded copper alloy
4. Sphere: a; attachment system: a; type: chased decoration, ornament: plant, scheme: arcade
5. Sex (anthropologically): -; age-at-death: infans I
6. Klanica 1985, 513, 531, 532, obr. 21: 18; inventory book 1975 (MInv 75-2_0354)



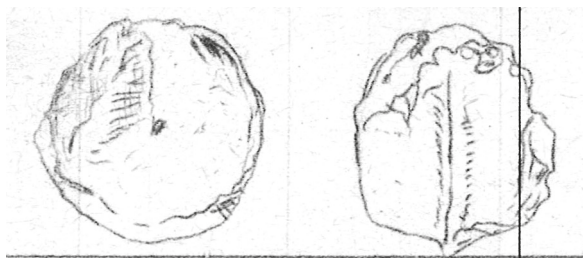
G 1380

1. Inv. No. 798/76; Klášteřisko, Grave 1380; not preserved
2. Non-paired; total number of gombíky in grave: 1; situation: under the chest
3. Dimensions: -; material: glass
4. Sphere: not analysed; attachment system: not analysed; type: not analysed
5. Sex (anthropologically): -; age-at-death: infans I
6. Klanica 1985, 514, 531; inventory book 1976 (MInv 76-1_0169)



G 1395

1. Inv. No. 1967/76; Klášteřisko, Grave 1395; not preserved, probably a rattle
2. Non-paired; total number of gombíky in grave: 1; situation: in the place of the left palm
3. Dimensions: -; material: iron
4. Sphere: not analysed; attachment system: not analysed; type: not analysed
5. Sex (anthropologically): -; age-at-death: infans I
6. Klanica 1985, 515, obr. 25: 9; inventory book 1976 (MInv 76_0460)



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- G 1661 **1. Inv. No. 515/85; Kostelisko, Grave 1661**
 2. Non-paired; total number of gombíky in grave: 1; situation: unknown
 3. Dimensions: -; material: silver
 4. Sphere: -; attachment system: b; type: chased decoration, ornament: plant, scheme: -
 5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: infans I
 6. Unpublished; inventory book 1985 (MInv 85_0126)



- G 1665a **1. Inv. No. 524/85; Kostelisko, Grave 1665a**
 2. Non-paired; total number of gombíky in grave: 1; situation: unknown
 3. Dimensions: (loop damaged) × 11.1 × 11.3 mm; material: silver
 4. Sphere: a; attachment system: b; type: chased decoration, ornament: -, scheme: vertical ribbing
 5. Sex (anthropologically): female?, gender (archaeologically): male; age-at-death: maturus I
 6. Poláček et al. 2021, 180; inventory book 1985 (MInv 85_0128)



- G 1671 **1. Inv. No. 567/85; Kostelisko, Grave 1671; not preserved**
 2. Non-paired; total number of gombíky in grave: 1; situation: at the neck
 3. Dimensions: -; material: gilded copper alloy
 4. Sphere: a?; attachment system: -; type: soldered decoration, ornament: filigree rings
 5. Sex (anthropologically): -; age-at-death: infans I
 6. Unpublished; inventory book 1985 (MInv 85_0139)



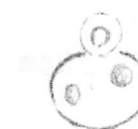
- G 1675 **1. Inv. No. 2824/86; Kostelisko, Grave 1675**
 2. Paired with Inv. No. 2825/86; total number of gombíky in grave: 3; situation: at the southern side of the grave pit
 3. Dimensions: diameter 12.5 mm; material: silver
 4. Sphere: a; attachment system: b; type: chased decoration, ornament: plant, scheme: medallion
 5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: infans I
 6. Unpublished; inventory book 1986 (MInv 86-2_0392)






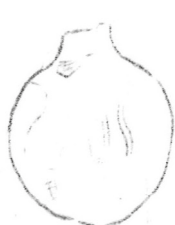



- G 1675 **1. Inv. No. 2825/86; Kostelisko, Grave 1675**
 2. Paired with Inv. No. 2824/85; total number of gombíky in grave: 3; situation: south side of skull fragments
 3. Dimensions: diameter 12.7 mm; material: silver
 4. Sphere: a; attachment system: b; type: chased decoration, ornament: plant, scheme: medallion
 5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: infans I
 6. Unpublished; inventory book 1986 (MInv 86-2_0392)



- G 1675 **1. Inv. No. 571/85; Kostelisko, Grave 1675; not preserved**
 2. Non-paired; total number of gombíky in grave: 3; situation: unknown
 3. Dimensions: -; material: glass
 4. Sphere: not analysed; attachment system: not analysed; type: not analysed
 5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: infans I
 6. Unpublished; inventory book 1985 (MInv 85_0140)



- G 1682 **1. Inv. No. 598/85; Kostelisko, Grave 1682; not preserved**
 2. Non-paired; total number of gombíky in grave: 1; situation: unknown
 3. Dimensions: -; material: glass
 4. Sphere: not analysed; attachment system: not analysed; type: not analysed
 5. Sex (anthropologically): -; age-at-death: infans I
 6. Unpublished; inventory book 1985 (MInv 85_0148)
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-
- G 1683 **1. Inv. No. 599/85; Kostelisko, Grave 1683; not preserved**
 2. Non-paired; total number of gombíky in grave: 1; situation: unknown
 3. Dimensions: -; material: glass
 4. Sphere: not analysed; attachment system: not analysed; type: not analysed
 5. Sex (anthropologically): -; age-at-death: infans I
 6. Unpublished; inventory book 1985 (MInv 85_0148)
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- G 1693 **1. Inv. No. 639/85; Kostelisko, Grave 1693; not preserved**
 2. Paired with Inv. No. 640/85; total number of gombíky in grave: 2; situation: unknown
 3. Dimensions: -; material: gilded copper alloy
 4. Sphere: a; attachment system: -; type: undecorated?
 5. Sex (anthropologically): -; age-at-death: infans I
 6. Unpublished; inventory book 1985 (MInv 85_0162)
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-
- G 1693 **1. Inv. No. 640/85; Kostelisko, Grave 1693; not preserved**
 2. Paired with Inv. No. 639/85; total number of gombíky in grave: 2; situation: unknown
 3. Dimensions: -; material: gilded copper alloy
 4. Sphere: a; attachment system: -; type: undecorated?
 5. Sex (anthropologically): -; age-at-death: infans I
 6. Unpublished; inventory book 1985 (MInv 85_0162)
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- G 1702 **1. Inv. No. 664/85; Kostelisko, Grave 1702**
 2. Paired?; total number of gombíky in grave: 4; situation: unknown
 3. Dimensions: -; material: gilded copper alloy
 4. Sphere: -; attachment system: -; type: chased decoration, ornament: plant, scheme: -
 5. Sex (anthropologically): female?; age-at-death: juvenis
 6. Unpublished; inventory book 1985 (MInv 85_0165)
- 
-
- G 1702 **1. Inv. No. 647/85; Kostelisko, Grave 1702; not preserved, without figure**
 2. Paired?; total number of gombíky in grave: 4; situation: at the head
 3. Dimensions: -; material: gilded copper alloy
 4. Sphere: -; attachment system: -; type: -
 5. Sex (anthropologically): female?; age-at-death: juvenis
 6. Unpublished; inventory book 1985 (MInv 85_0163)
-
- G 1702 **1. Inv. No. 648/85; Kostelisko, Grave 1702; not preserved**
 2. Paired?; total number of gombíky in grave: 4; situation: 16 cm above the skeleton (above the chest), 12 cm from the skull
 3. Dimensions: -; material: gilded copper alloy
 4. Sphere: -; attachment system: -; type: -
 5. Sex (anthropologically): female?; age-at-death: juvenis
 6. Unpublished; inventory book 1985 (MInv 85_0164)
- 
-
- G 1702 **1. Inv. No. 2829/86; Kostelisko, Grave 1702; not preserved**
 2. Paired?; total number of gombíky in grave: 4; situation: in the upper half of the chest
 3. Dimensions: -; material: gilded copper alloy
 4. Sphere: -; attachment system: -; type: -
 5. Sex (anthropologically): female?; age-at-death: juvenis
 6. Unpublished; inventory book 1986 (MInv 86-2_0393)
- 

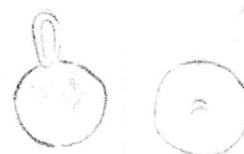
- G 1717 **1. Inv. No. 707/85; Kostelisko, Grave 1717; not preserved**
 2. Non-paired; total number of gombíky in grave: 1; situation: in the fill about 5 cm above the skull, 10 cm north
 3. Dimensions: -; material: glass
 4. Sphere: not analysed; attachment system: not analysed; type: not analysed
 5. Sex (anthropologically): female; age-at-death: maturus I
 6. Unpublished; inventory book 1985 (MInv 85_0175)



- G 1721 **1. Inv. No. 438/85; Kostelisko, Grave 1721; not preserved**
 2. Non-paired; total number of gombíky in grave: 1; situation: unknown
 3. Dimensions: -; material: glass
 4. Sphere: not analysed; attachment system: not analysed; type: not analysed
 5. Sex (anthropologically): -; age-at-death: infans I
 6. Unpublished; inventory book 1985 (MInv 85_0112)



- G 1727 **1. Inv. No. 2845/86; Kostelisko, Grave 1727; not preserved**
 2. Paired with Inv. No. 2846/86; total number of gombíky in grave: 2; situation: unknown
 3. Dimensions: -; material: glass
 4. Sphere: not analysed; attachment system: not analysed; type: not analysed
 5. Sex (anthropologically): -; age-at-death: infans I
 6. Unpublished; inventory book 1986 (MInv 86-2_0395)



- G 1727 **1. Inv. No. 2846/86; Kostelisko, Grave 1727; not preserved**
 2. Paired with Inv. No. 2845/86; total number of gombíky in grave: 2; situation: unknown
 3. Dimensions: -; material: glass
 4. Sphere: not analysed; attachment system: not analysed; type: not analysed
 5. Sex (anthropologically): -; age-at-death: infans I
 6. Unpublished; inventory book 1986 (MInv 86-2_0395)



- G 1729 **1. Inv. No. 2848/86; Kostelisko, Grave 1729**
 2. Non-paired; total number of gombíky in grave: 1; situation: unknown
 3. Dimensions: 24.8 × 17.3 × 17.4 mm; material: gilded copper alloy
 4. Sphere: a; attachment system: b; type: chased decoration, ornament: zoomorphic, scheme: medallion
 5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: infans II
 6. Kouřil ed. 2014, 423; inventory book 1986 (MInv 86-2_0396)



- G 1742 **1. Inv. No. 2934/86; Kostelisko, Grave 1742**
 2. Paired with Inv. No. 2935/86; total number of gombíky in grave: 2; situation: in the grave symmetrically, but the place is unknown
 3. Dimensions: 29.1 × 21.1 × 22.9 mm; material: gilded copper alloy
 4. Sphere: a; attachment system: a; type: chased decoration, ornament: plant, scheme: medallion
 5. Sex (anthropologically): female?; age-at-death: adultus I
 6. Poláček et al. 2021, 181; inventory book 1986 (MInv 86-2_0414)



G 1742

1. Inv. No. 2935/86; Kostelisko, Grave 1742
2. Paired with Inv. No. 2934/86; total number of gombíky in grave: 2; situation: in the grave symmetrically, but the place is unknown
3. Dimensions: 28.7 × 20.4 × 23.1 mm; material: gilded copper alloy
4. Sphere: a; attachment system: a; type: chased decoration, ornament: plant, scheme: medallion
5. Sex (anthropologically): female?; age-at-death: adultus I
6. Poláček et al. 2021, 181; inventory book 1986 (MInv 86-2_0414)



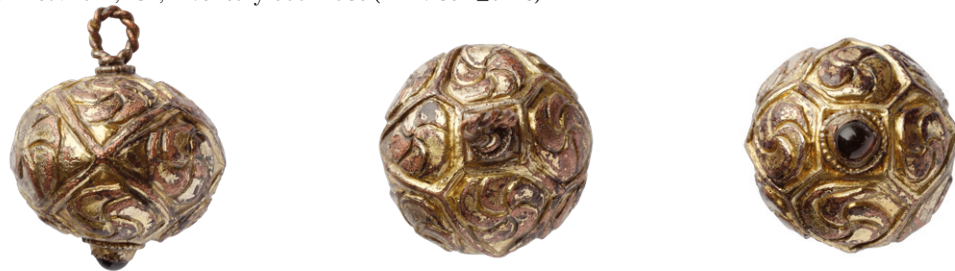
G 1746

1. Inv. No. 5759/89; Kostelisko, Grave 1746; not preserved
2. Non-paired; total number of gombíky in grave: 1; situation: to the right of the right shoulder
3. Dimensions: -; material: gilded copper alloy
4. Sphere: -; attachment system: -; type: -
5. Sex (anthropologically): female; age-at-death: maturus I
6. Unpublished; inventory book 1989 (MInv 89-4_0371)



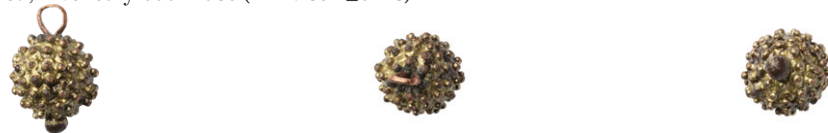
G 1766

1. Inv. No. 3049/86; Kostelisko, Grave 1766
2. Non-paired; total number of gombíky in grave: 3; situation: by the left temple
3. Dimensions: 31.9 × 23.4 × 25.5 mm; material: gilded copper alloy
4. Sphere: a; attachment system: b; type: chased decoration, ornament: plant, scheme: net
5. Sex (anthropologically): female?, gender (archaeologically): male; age-at-death: adultus I
6. Kouřil ed. 2014, 434; inventory book 1986 (MInv 86-2_0448)



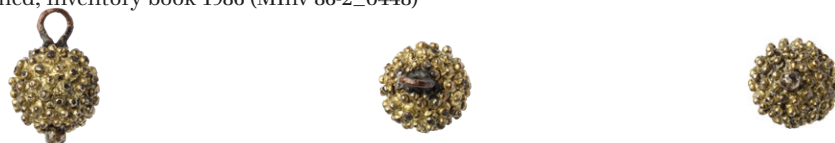
G 1766

1. Inv. No. 3050/86; Kostelisko, Grave 1766
2. Paired with Inv. No. 3051/86; total number of gombíky in grave: 3; situation: at the chin
3. Dimensions: 17.6 × 13.8 × 12.0 mm; material: gilded copper alloy
4. Sphere: a; attachment system: b; type: soldered decoration, ornament: full-surface granulation
5. Sex (anthropologically): female?, gender (archaeologically): male; age-at-death: adultus I
6. Unpublished; inventory book 1986 (MInv 86-2_0448)



G 1766

1. Inv. No. 3051/86; Kostelisko, Grave 1766
2. Paired with Inv. No. 3050/86; total number of gombíky in grave: 3; situation: to the right of the skull
3. Dimensions: 18.0 × 13.2 × 11.9 mm; material: gilded copper alloy
4. Sphere: a; attachment system: b; type: soldered decoration, ornament: full-surface granulation
5. Sex (anthropologically): female?, gender (archaeologically): male; age-at-death: adultus I
6. Unpublished; inventory book 1986 (MInv 86-2_0448)



- G 1798 **1. Inv. No. 3873/87; Kostelisko, Grave 1798; not preserved, probably a rattle**
 2. Non-paired; total number of gombíky in grave: 1; situation: on the abdomen
 3. Dimensions: -; material: iron
 4. Sphere: not analysed; attachment system: not analysed; type: not analysed
 5. Sex (anthropologically): -; age-at-death: infans I
 6. Unpublished; inventory book 1987 (MInv 87-3_0344)



- G 1801 **1. Inv. No. 3878/87; Kostelisko, Grave 1801; not preserved**
 2. Non-paired; total number of gombíky in grave: 1; situation: behind the head
 3. Dimensions: -; material: gilded copper alloy
 4. Sphere: -; attachment system: -; type: chased decoration, ornament: plant?, scheme: -
 5. Sex (anthropologically): -; age-at-death: infans I
 6. Unpublished; inventory book 1987 (MInv 87-3_0345)



- G 1825 **1. Inv. No. 3900/87; Kostelisko, Grave 1825; not preserved**
 2. Non-paired; total number of gombíky in grave: 1; situation: by the chin
 3. Dimensions: -; material: gilded copper alloy
 4. Sphere: a; attachment system: -; type: undecorated
 5. Sex (anthropologically): -; age-at-death: infans I
 6. Unpublished; inventory book 1987 (MInv 87-3_0352)



- G 1846 **1. Inv. No. 3953/87; Kostelisko, Grave 1846**
 2. Paired with Inv. No. 3954/87; Total number of gombíky in grave: 2; situation: at the chin on the left
 3. Dimensions: 24.7 × 18.7 × 23.4 mm; material: gilded copper alloy
 4. Sphere: c; attachment system: a; type: chased decoration, ornament: plant, scheme: arcade
 5. Sex (anthropologically): -; age-at-death: infans I
 6. Unpublished; inventory book 1987 (MInv 87-3_0361)



- G 1846 **1. Inv. No. 3954/87; Kostelisko, Grave 1846**
 2. Paired with Inv. No. 3953/87; total number of gombíky in grave: 2; situation: by the chin on the right
 3. Dimensions: (loop damaged) × 18.2 × 23.9 mm; material: gilded copper alloy
 4. Sphere: c; attachment system: a; type: chased decoration, ornament: plant, scheme: arcade
 5. Sex (anthropologically): -; age-at-death: infans I
 6. Unpublished; inventory book 1987 (MInv 87-3_0362)



- G 1850 **1. Inv. No. 3960/87; Kostelisko, Grave 1850**
 2. Paired with Inv. No. 3961/87; total number of gombíky in grave: 2; situation: unknown
 3. Dimensions: 16.6 × 11.9 × 12.0 mm; material: silver
 4. Sphere: a; attachment system: b; type: soldered decoration, ornament: 'poppyseed' granulation
 5. Sex (anthropologically): -; age-at-death: infans I
 6. Unpublished; inventory book 1987 (MInv 87-3_0363)



G 1850

1. Inv. No. 3961/87; Kostelisko, Grave 1850
2. Paired with Inv. No. 3960/87; total number of gombíky in grave: 2; situation: unknown
3. Dimensions: 16.9 × 12.2 × 11.8 mm; material: silver
4. Sphere: a; attachment system: b; type: soldered decoration, ornament: 'poppyseed' granulation
5. Sex (anthropologically): -; age-at-death: infans I
6. Unpublished; inventory book 1987 (MInv 87-3_0363)



G 1870

1. Inv. No. 2715/88; Kostelisko, Grave 1870
2. Paired with Inv. No. 2712/88; total number of gombíky in grave: 2; situation: on the left side of the hip
3. Dimensions: 16.2 × 12.6 × 13.3 mm; material: silver
4. Sphere: a; attachment system: b; type: soldered decoration, ornament: full-surface granulation
5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: infans I
6. Unpublished; inventory book 1988 (MInv 88-2_0353)



G 1870

1. Inv. No. 2712/88; Kostelisko, Grave 1870
2. Paired with Inv. No. 2715/88; total number of gombíky in grave: 2; situation: under the skull
3. Dimensions: 15.9 × 12.3 × 13.0 mm; material: silver
4. Sphere: a; attachment system: b; type: soldered decoration, ornament: full-surface granulation, scheme: -
5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: infans I
6. Unpublished; inventory book 1988 (MInv 88-2_0353)



G 1871

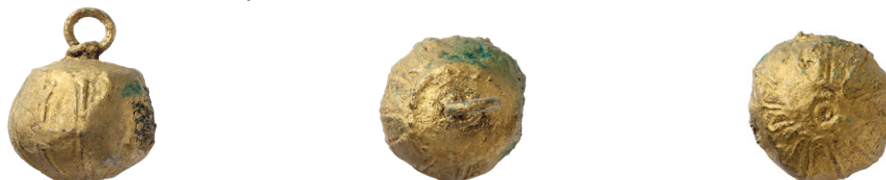
1. Inv. No. 2716/88; Kostelisko, Grave 1871
2. Paired with Inv. No. 2717/88; total number of gombíky in grave: 4; situation: unknown
3. Dimensions: 27.5 × 20.4 × 29.1 mm; material: silver
4. Sphere: b; attachment system: a; type: chased decoration, ornament: plant, scheme: cordate meander
5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: infans I
6. Unpublished; inventory book 1988 (MInv 88-2_0353)



- G 1871 **1. Inv. No. 2717/88; Kostelisko, Grave 1871**
 2. Paired with Inv. No. 2716/88; total number of gombíky in grave 4; situation: unknown
 3. Dimensions: 28.2 × 20.1 × 28.2 mm; material: silver
 4. Sphere: b; attachment system: a; type: chased decoration, ornament: plant, scheme: cordate meander
 5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: infans I
 6. Kouřil ed. 2014, 425; Poláček et al. 2021, 181; inventory book 1988 (MInv 88-2_0354)



- G 1871 **1. Inv. No. 2718/88; 397/š; Kostelisko, Grave 1871**
 2. Paired with Inv. No. 2719/88?; total number of gombíky in grave 4; situation: below the skull/skeletal level
 3. Dimensions: 16.2 × 12.7 × 12.8 mm; material: copper alloy
 4. Sphere: c; attachment system: b; type: chased decoration, ornament: -, scheme: vertical ribbing
 5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: infans I
 6. Poláček et al. 2021, 181; inventory book 1988 (MInv 88-2_0354)



- G 1871 **1. Inv. No. 2719/88; Kostelisko, Grave 1871; not preserved, without figure**
 2. Paired with Inv. No. 2718/88?; total number of gombíky in grave 4; situation: unknown
 3. Dimensions: -; material: copper alloy
 4. Sphere: -; attachment system: -; type: -
 5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: infans I
 6. Unpublished; inventory book 1988 (MInv 88-2_0354)

- G 1901 **1. Inv. No. 5779/89; Kostelisko, Grave 1901; not preserved, probably a rattle**
 2. Non-paired; total number of gombíky in grave: 1; situation: by the right knee
 3. Dimensions: -; material: iron
 4. Sphere: not analysed; attachment system: not analysed; type: not analysed
 5. Sex (anthropologically): -; age-at-death: infans I
 6. Unpublished; inventory book 1989 (MInv 89-4_0377)

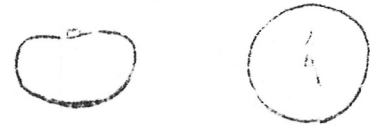


- G 1914 **1. Inv. No. 5834/89; Kostelisko, Grave 1914; not preserved**
 2. Paired with Inv. No. 5835/89; total number of gombíky in grave: 2; situation: on the right side of the chin
 3. Dimensions: -; material: glass
 4. Sphere: not analysed; attachment system: not analysed; type: not analysed
 5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: infans I
 6. Unpublished; inventory book 1989 (MInv 89-4_0390)



G 1914

1. Inv. No. 5835/89; Kostelisko, Grave 1914; not preserved
2. Paired with Inv. No. 5834/89; total number of gombíky in grave: 2; situation: on the left shoulder
3. Dimensions: -; material: glass
4. Sphere: not analysed; attachment system: not analysed; type: not analysed
5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: infans I
6. Unpublished; inventory book 1989 (MInv 89-4_0390)



G 1917

1. Inv. No. 5849/89; Kostelisko, Grave 1917
2. Paired with Inv. No. 5850/89; total number of gombíky in grave: 3; situation: unknown
3. Dimensions: (loop damaged) × 13.5 × 14.4 mm; material: silver
4. Sphere: a; attachment system: b; type: soldered decoration, ornament: full-surface granulation
5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: infans I
6. Unpublished; inventory book 1989 (MInv 89-4_0393)



G 1917

1. Inv. No. 5850/89; Kostelisko, Grave 1917
2. Paired with Inv. No. 5849/89; total number of gombíky in grave: 3; situation: unknown
3. Dimensions: (loop damaged) × 12.8 × 13.4 mm; material: silver
4. Sphere: a; attachment system: -; type: soldered decoration, ornament: full-surface granulation
5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: infans I
6. Unpublished; inventory book 1989 (MInv 89-4_0393)



G 1917

1. Inv. No. 5853a/89; Kostelisko, Grave 1917
2. Non-paired; total number of gombíky in grave: 3; situation: in the pit under the skull from the grave 1746
3. Dimensions: -; material: gilded copper alloy
4. Sphere: -; attachment system: -; type: chased decoration, ornament: -, scheme: -
5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: infans I
6. Unpublished; inventory book 1989 (MInv 89-4_0393)



G 1951

1. Inv. No. 5885/89; Kostelisko, Grave 1951; not preserved
2. Paired with Inv. No. 5889/89?; total number of gombíky in grave: 2; situation: about 25 cm north of the skull
3. Dimensions: -; material: gilded copper alloy
4. Sphere: -; attachment system: -; type: undecorated
5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: infans II
6. Unpublished; inventory book 1989 (MInv 89-4_0403)



G 1951

1. Inv. No. 5889/89; Kostelisko, Grave 1951; not preserved
2. Paired with Inv. No. 5885/89?; total number of gombíky in grave: 2; situation: under the skull
3. Dimensions: -; material: gilded copper alloy
4. Sphere: -; attachment system: -; type: undecorated
5. Sex (anthropologically): -, gender (archaeologically): female; age-at-death: infans II
6. Unpublished; inventory book 1989 (MInv 89-4_0404)



- G 1958 **1. Inv. No. 5908/89; Kostelisko, Grave 1958**
 2. Paired with Inv. No. 5909/89; total number of gombíky in grave: 2; situation: unknown
 3. Dimensions: (loop damaged) × 15.7 × 15.3 mm; material: gilded copper alloy
 4. Sphere: a; attachment system: b; type: chased decoration, ornament: geometric, scheme: of eight fields
 5. Sex (anthropologically): female; age-at-death: adultus II
 6. Unpublished; inventory book 1989 (MInv 89-4_0409)



- G 1958 **1. Inv. No. 5909/89; Kostelisko, Grave 1958**
 2. Paired with Inv. No. 5908/89; total number of gombíky in grave: 2; situation: unknown
 3. Dimensions: (loop damaged) × 15.9 × 16.1 mm; material: gilded copper alloy
 4. Sphere: a; attachment system: b; type: chased decoration, ornament: geometric, scheme: of eight fields
 5. Sex (anthropologically): female; age-at-death: adultus II
 6. Unpublished; inventory book 1989 (MInv 89-4_0409)



- G 1959 **1. Inv. No. 5918/89; Kostelisko, Grave 1959**
 2. Non-paired; total number of gombíky in grave: 1; situation: by the first thoracic vertebra
 3. Dimensions: -; material: silver
 4. Sphere: -; attachment system: b; type: soldered decoration, ornament: 'poppyseed' granulation
 5. Sex (anthropologically): female?; age-at-death: infans II
 6. Unpublished; inventory book 1989 (MInv 89-4_0411)



- G 1989 **1. Inv. No. 315/90; Kostelisko, Grave 1989; not preserved, probably a rattle**
 2. Non-paired; total number of gombíky in grave: 1; situation: by the pelvis
 3. Dimensions: -; material: iron
 4. Sphere: not analysed; attachment system: not analysed; type: not analysed
 5. Sex (anthropologically): -, gender (archaeologically): male; age-at-death: infans I
 6. Unpublished; inventory book 1990 (MInv 90-1_0070)



SETTLEMENT FINDS

1. Inv. No. 988/57; settlement find
2. Non-paired
3. Dimensions: 28.5 × 20.2 × 23.3 mm; material: gilded copper alloy
4. Sphere: a; attachment system: a; type: chased decoration, ornament: geometric, scheme: cordate meander
5. -
6. Kouřil ed. 2014, 434; inventory book 1957 (MInv 57-1 0150)



1. Inv. No. 989/57; settlement find
2. Non-paired
3. Dimensions: (loop damaged) × 20.1 × 18.4 mm; material: gilded copper alloy
4. Sphere: a; attachment system: a?; type: chased decoration, ornament: geometric, scheme: of eight fields
5. -
6. Unpublished; inventory book 1957 (MInv 57-1_0151)



1. Inv. No. 3083/78; settlement find
2. Non-paired
3. Dimensions: 52.3 × 40.9 × 44.5 mm; material: silver
4. Sphere: c; attachment system: a; type: chased decoration, ornament: zoomorphic, scheme: unclassified
5. -
6. Kouřil ed. 2014, 423; Ottenwelter 2022, 183-184; inventory book 1978 (MInv 78-4_0462)



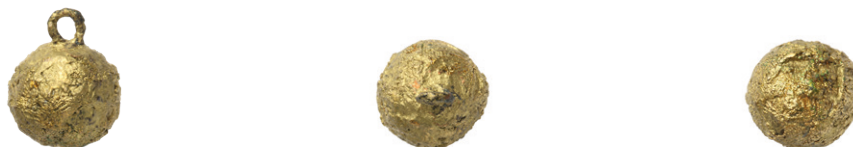
1. Inv. No. 4881/65; settlement find
2. Non-paired
3. Dimensions: (loop damaged) × 16.4 (bottom damaged) × 11.4 mm; material: gilded copper alloy
4. Sphere: a; attachment system: a; type: chased decoration, ornament: plant, scheme: arcade
5. -
6. Unpublished; inventory book 1965 (MInv 65-6_0485)



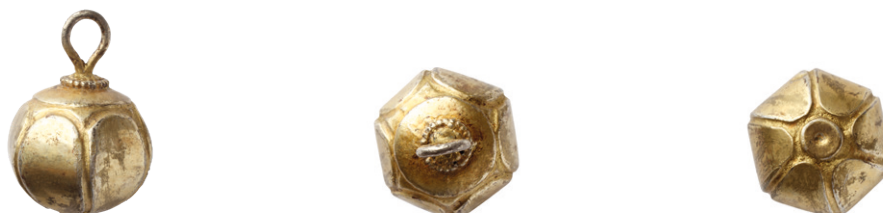
1. Inv. No. 3076/78; settlement find?
2. Paired with Inv. No. 3082/78
3. Dimensions: 24.9 × 16.5 × 17.1 mm; material: gilded silver
4. Sphere: b; attachment system: b; type: chased decoration, ornament: -, scheme: vertical ribbing
5. -
6. Unpublished; inventory book 1978 (MInv 78-4_0461)



1. Inv. No. 3269/78; settlement find?
2. Paired with Inv. No. 3268/78
3. Dimensions: 18.8 × 14.6 × 14.4 mm; material: gilded copper alloy
4. Sphere: a; attachment system: b; type: chased decoration, ornament: plant, scheme: medallion
5. -
6. Unpublished; inventory book 1978 (MInv 78-4_0501)



1. Inv. No. 3082/78; settlement find?
2. Paired with Inv. No. 3076/78
3. Dimensions: 24.4 × 15.7 × 17.6 mm; material: gilded silver
4. Sphere: b; attachment system: b; type: chased decoration, ornament: -, scheme: vertical ribbing
5. -
6. Kouřil ed. 2014, 421; inventory book 1978 (MInv 78-4_0461)



1. Inv. No. 3268/78; settlement find?
2. Paired with Inv. No. 3269/78
3. Dimensions: 17.5 × 13.9 × 14.8 mm; material: gilded copper alloy
4. Sphere: a; attachment system: b; type: chased decoration, ornament: plant, scheme: medallion
5. -
6. Unpublished; inventory book 1978 (MInv 78-4_0201)



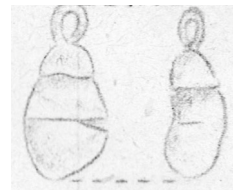
1. **Inv. No. 3007/58; settlement find; not preserved**
 2. Non-paired
 3. Dimensions: -; material: glass
 4. Sphere: not analysed; attachment system: not analysed; type: not analysed
 5. -
 6. Unpublished; inventory book 1958 (MInv 58-2_0718)



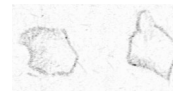
1. **Inv. No. 3075/78; settlement find; not preserved**
 2. Non-paired
 3. Dimensions: -; material: glass
 4. Sphere: not analysed; attachment system: not analysed; type: not analysed
 5. -
 6. Unpublished; inventory book 1978 (MInv 78-4_0460)



1. **Inv. No. 659/68; settlement find; not preserved**
 2. Non-paired
 3. Dimensions: diameter 11 mm, height 24 mm; material: gilded copper alloy
 4. Sphere: c?; attachment system: -; type: undecorated
 5. -
 6. Unpublished; inventory book 1968 (MInv 68-1_0161)



1. **Inv. No. 4370/57; settlement find; not preserved**
 2. Non-paired
 3. Dimensions: -; material: copper alloy
 4. Sphere: -; attachment system: -; type: -
 5. -
 6. Unpublished; inventory book 1957 (MInv 57-4_0423)



1. **Inv. No. 487/66; settlement find; not preserved**
 2. Non-paired
 3. Dimensions: -; material: copper alloy
 4. Sphere: -; attachment system: -; type: soldered decoration?, ornament: -
 5. -
 6. Unpublished; inventory book 1966 (MInv 66-1_0190)



1. **Inv. No. 546/71; settlement find; not preserved**
 2. Non-paired
 3. Dimensions: -; material: copper alloy
 4. Sphere: -; attachment system: -; type: -
 5. -
 6. Unpublished; inventory book 1971 (MInv 71-1_0116)



1. **Inv. No. 547/71; settlement find; not preserved**
 2. Non-paired
 3. Dimensions: -; material: copper alloy
 4. Sphere: -; attachment system: -; type: -
 5. -
 6. Unpublished; inventory book 1971 (MInv 71-1_0116)



1. **Inv. No. 2578/88; settlement find; not preserved**
 2. Non-paired
 3. Dimensions: -; material: -
 4. Sphere: -; attachment system: -; type: -
 5. -
 6. Unpublished; inventory book 1988 (MInv 88-2_0070)



1. Inv. No. 5572/89; settlement find; not preserved
2. Non-paired
3. Dimensions: -; material: copper alloy
4. Sphere: a; attachment system: b?; type: soldered decoration, ornament: filigree rings
5. -
6. Unpublished; inventory book 1989 (MInv 89-5_0331)



1. Inv. No. 455/90; settlement find; not preserved
2. Non-paired
3. Dimensions: -; material: -
4. Sphere: -; attachment system: -; type: -
5. -
6. Unpublished; inventory book 1990 (MInv 90-1_0103)



1. Inv. No. 710/68; settlement find; not preserved; probably a rattle
2. Non-paired
3. Dimensions: -; material: iron
4. Sphere: not analysed; attachment system: not analysed; type: not analysed
5. -
6. Unpublished; inventory book 1968 (MInv 68-1_0175)



1. Inv. No. 348/66; settlement find; not preserved
2. Non-paired
3. Dimensions: -; material: glass
4. Sphere: not analysed; attachment system: not analysed; type: not analysed
5. -
6. Unpublished; inventory book 1966 (MInv 66-1_0131)



1. Inv. No. 349/66; settlement find; not preserved
2. Non-paired
3. Dimensions: -; material: glass
4. Sphere: not analysed; attachment system: not analysed; type: not analysed
5. -
6. Unpublished; inventory book 1966 (MInv 66-1_0131)



1. Inv. No. 294/63; settlement find; not preserved
2. Non-paired
3. Dimensions: diameter 11 mm, height with loop 15 mm; material: glass
4. Sphere: not analysed; attachment system: not analysed; type: not analysed
5. -
6. Unpublished; inventory book 1963 (MInv 63-1_0081)



1. Inv. No. 5749/63; settlement find; not preserved
2. Non-paired
3. Dimensions: -; material: silver
4. Sphere: -; attachment system: -; type: chased decoration, ornament: plant, scheme: arcade?
5. -
6. Unpublished; inventory book 1963 (MInv 63-4_0517)



1. Inv. No. 1043/57; settlement find; not preserved, without figure
2. Non-paired
3. Dimensions: -; material: copper alloy
4. Sphere: -; attachment system: -; type: chased decoration, ornament: plant, scheme: -
5. -
6. Unpublished; inventory book 1957 (MInv 57-1_0159)

1. Inv. No. 961/56; settlement find; not preserved, without figure
2. Non-paired
3. Dimensions: -; material: copper alloy
4. Sphere: -; attachment system: -; type: -
5. -
6. Unpublished; inventory book 1956 (MInv 55-56_0113)

1. Inv. No. 570/74; settlement find; not preserved
2. Non-paired
3. Dimensions: -; material: copper alloy
4. Sphere: -; attachment system: -; type: soldered decoration, ornament: filigree rings
5. -
6. Unpublished; inventory book 1974 (MInv 74-1_0154)



1. Inv. No. 10055/60; settlement find; not preserved, without figure
2. Non-paired
3. Dimensions: -; material: copper alloy
4. Sphere: -; attachment system: -; type: -
5. -
6. Unpublished; inventory book 1960 (MInv 60-4_0408)

1. Inv. No. 579/56; settlement find; not preserved, without figure
2. Non-paired
3. Dimensions: -; material: gilded copper alloy?
4. Sphere: -; attachment system: -; type: -
5. -
6. Unpublished; inventory book 1956 (MInv 55-56_0079)

1. Inv. No. 249/72; settlement find; not preserved
2. Non-paired
3. Dimensions: -; material: glass
4. Sphere: not analysed; attachment system: not analysed; type: not analysed
5. -
6. Unpublished; inventory book 1972 (MInv 72-1_0064)



1. Inv. No. 254/72; settlement find; not preserved
2. Non-paired
3. Dimensions: -; material: glass
4. Sphere: not analysed; attachment system: not analysed; type: not analysed
5. -
6. Unpublished; inventory book 1972 (MInv 72-1_0065)



1. Inv. No. 248/64; settlement find; not preserved
2. Non-paired
3. Dimensions: -; material: glass
4. Sphere: not analysed; attachment system: not analysed; type: not analysed
5. -
6. Unpublished; inventory book 1964 (MInv 64-1_0058)



1. Inv. No. 3081/75; settlement find; not preserved
2. Non-paired
3. Dimensions: diameter 11 mm; material: glass
4. Sphere: not analysed; attachment system: not analysed; type: not analysed
5. -
6. Unpublished; inventory book 1975 (MInv 75-2_0328)



1. Inv. No. 490/68; settlement find; not preserved
2. Non-paired
3. Dimensions: -; material: glass
4. Sphere: not analysed; attachment system: not analysed; type: not analysed
5. -
6. Unpublished; inventory book 1968 (MInv 68-1_0123)



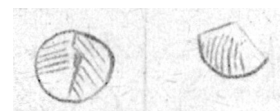
1. Inv. No. 488/68; settlement find; not preserved
2. Non-paired
3. Dimensions: -; material: glass
4. Sphere: not analysed; attachment system: not analysed; type: not analysed
5. -
6. Unpublished; inventory book 1968 (MInv 68-1_0123)



1. Inv. No. 223/74; settlement find; not preserved
2. Non-paired
3. Dimensions: -; material: glass
4. Sphere: not analysed; attachment system: not analysed; type: not analysed
5. -
6. Unpublished; inventory book 1974 (MInv 74-1_0060)



1. Inv. No. 3079/75; settlement find; not preserved
2. Non-paired
3. Dimensions: height 8 mm, diameter 11 mm; material: glass
4. Sphere: not analysed; attachment system: not analysed; type: not analysed
5. -
6. Unpublished; inventory book 1975 (MInv 75-2_0327)



1. Inv. No. 280/63; settlement find; not preserved
2. Non-paired
3. Dimensions: diameter 16 mm; material: glass
4. Sphere: not analysed; attachment system: not analysed; type: not analysed
5. -
6. Unpublished; inventory book 1963 (MInv 63-1_0079)



1. Inv. No. 389/71; settlement find; not preserved
2. Non-paired
3. Dimensions: -; material: glass
4. Sphere: not analysed; attachment system: not analysed; type: not analysed
5. -
6. Unpublished; inventory book 1971 (MInv 71-1_0088)



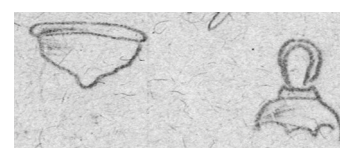
1. Inv. No. 655/69; settlement find; not preserved
2. Non-paired
3. Dimensions: -; material: glass
4. Sphere: not analysed; attachment system: not analysed; type: not analysed
5. -
6. Unpublished; inventory book 1969 (MInv 69-1_0162)



1. Inv. No. 2984/78; settlement find; not preserved
2. Non-paired
3. Dimensions: -; material: glass
4. Sphere: not analysed; attachment system: not analysed; type: not analysed
5. -
6. Unpublished; inventory book 1978 (MInv 78-4_0436)



1. Inv. No. 5908/58; settlement find; not preserved
2. Non-paired
3. Dimensions: -; material: copper alloy?
4. Sphere: a; attachment system: b?; type: -
5. -
6. Unpublished; inventory book 1958 (MInv 58_1296)



LOCATION UNKNOWN

1. Without Inv. No. (alternative designation VVMP 006/17); location unknown
2. Paired with VVMP 007/17
3. Dimensions: 27.9 × 20.0 × 22.5 mm; material: gilded copper alloy
4. Sphere: c; attachment system: a; type: chased decoration, ornament: plant, scheme: cordate meander
5. -
6. Unpublished



1. Without Inv. No. (alternative designation VVMP 007/17); location unknown
2. Paired with VVMP 006/17
3. Dimensions: 26.6 × 19.1 × 22.5 mm; material: gilded copper alloy
4. Sphere: c; attachment system: a; type: chased decoration, ornament: plant, scheme: cordate meander
5. -
6. Unpublished



1. Inv. No. 5743/63; location unknown; not preserved
2. Non-paired
3. Dimensions: -; material: silver
4. Sphere: -; attachment system: -; type: chased decoration, ornament: plant, scheme: medallion?
5. -
6. Unpublished; inventory book 1963 (MInv 63-4_0517)



1. Inv. No. 5746/63; location unknown; not preserved
2. Paired with Inv. No. 5747/63
3. Dimensions: -; material: gilded copper alloy
4. Sphere: a; attachment system: b?; type: chased decoration, ornament: geometric, scheme: of eight fields
5. -
6. Unpublished; inventory book 1963 (MInv 63-4_517)



1. Inv. No. 5747/63; location unknown; not preserved
2. Paired with Inv. No. 5746/63
3. Dimensions: -; material: gilded copper alloy
4. Sphere: a; attachment system: b?; type: chased decoration, ornament: geometric, scheme: of eight fields
5. -
6. Unpublished; inventory book 1963 (MInv 63-4_0517)



1. Inv. No. 5748/63; location unknown; not preserved
2. Non-paired
3. Dimensions: -; material: -
4. Sphere: -; attachment system: -; type: -
5. -
6. Unpublished; inventory book 1963 (MInv 63-4_0517)



-
1. Inv. No. 1897/57; location unknown
 2. Non-paired
 3. Dimensions: 17.1 × 12.0 × 16.4 mm; material: gold
 4. Sphere: b; attachment system: b; type: chased decoration, ornament: plant, scheme: arcade
 5. -
 6. Kouřil ed. 2014, 426; Ottenwelter 2022, 161-162; inventory book 1957 (MInv 57-1_0301)



-
1. Inv. No. 4496/57; location unknown
 2. Non-paired
 3. Dimensions: 20.4 × 13.6 × 13.9-16.1 mm; material: gilded copper alloy
 4. Sphere: a; attachment system: b; type: undecorated
 5. -
 6. Kouřil ed. 2014, 421; inventory book 1957 (MInv 57-2_0457)



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