

RESEARCH ARTICLE – VÝZKUMNÝ ČLÁNEK

The die for the production of the hammered kaptorgas from Kouřim, central Bohemia: An example of the local adoption of a Byzantine motif

Tepací forma na výrobu tepaných kaptorg z Kouřimi ve středních Čechách: Příklad lokálního osvojení byzantského motivu

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Kaptorgas were small trapezoidal boxes with lids worn by women and girls in early medieval central Europe as magic or protective amulets. The paper presents a new find of a bronze cast die for hammering the front side of kaptorgas, which was excavated at the Nad Dolnicí settlement site located in the hinterland of the important central Bohemian hillfort of Kouřim. The die was used to produce type IA kaptorgas with a motif of a four-legged eared gryphon with an indication of a wing and a tail ending in a floral decorative element. Although kaptorgas with this particular motif have not been recorded in Bohemia, it has analogies in Bulgaria and Poland. Based on the stylistic assessment of this originally Mediterranean motif and the chronology of type IA kaptorgas in Bohemia, the die can be dated to the 10th and beginning of the 11th century. X-Ray fluorescence analysis and elemental mapping of the object's surface show that it was made from bronze with a significant lead admixture and a small admixture of zinc. The die is discussed in terms of the spread of Mediterranean motifs and their adaptation by local craftsmen.

kaptorga – goldsmithery – die/ hammering form – Bohemia – Early Middle Ages – stronghold hinterland – Byzantine influence

Kaptorgy byly malé lichoběžníkové schránky s víčkem, které nosily ženy a dívky v raně středověké střední Evropě jako magické či ochranné amulety. Tento článek představuje nový nález lité formy z bronzu sloužící k vytepávání přední strany kaptorg, která byla nalezena na sídlišti Nad Dolnicí nacházejícím se v zázemí významného středočeského hradiště Kouřim. Forma sloužila k výrobě kaptorg typu IA s motivem čtyřnohého gryfa s ušima, naznačeným křídlem a ocasem zakončeným rostlinným dekorativním prvkem. Přestože kaptorgy s tímto konkrétním vyobrazením nebyly v Čechách nalezeny, má motiv analogie v Bulharsku nebo Polsku. Na základě stylistického vyhodnocení tohoto původně středomořského motivu a chronologie kaptorg typu IA v Čechách lze tuto formu datovat do 10. a počátku 11. století. Rentgenfluorescenční analýza a prvkové mapování povrchu předmětu ukazují, že byl vyroben z bronzu s výraznou příměsí olova a malou příměsí zinku. Nález tepací formy je diskutován z hlediska šíření středomořských motivů a jejich adaptace místními řemeslníky.

kaptorga – zlatnictví – tepací forma – Čechy – raný středověk – zázemí hradiště – byzantský vliv

Introduction

Kaptorgas were characteristic of Bohemia, Moravia, Poland, northern Germany and areas inhabited by eastern Slavs. These small trapezoidal pendant boxes, likely linked to magic with apotropaic and protective functions, accompanied women and girls to the netherworld as part of their grave goods (Štefan 2005; Profantová – Šilhová 2010). The contents of boxes are very important for interpretation. With the current state of knowledge, it seems that kaptorgas spread over the territory of Bohemia in the 9th century, while a notable

increase in their appearance in other areas occurred slightly later in the last third of the 10th century. In this paper, we introduce a new find from the Kouřim – Nad Dolnicí site, which represents a die or hammering form for the production of kaptorgas. It is the first evidence of such a tool in the territory of the Czech Republic.

Although the testimonial value of the find is limited by the ambiguous archaeological context, it has the potential to broaden our knowledge of two crucial issues of early medieval archaeology in central Europe. First, it indicates local production of kaptorgas outside the Prague area, where we reasonably – albeit without direct proof – consider such production (Profantová – Daněček 2017; Frolíková-Kaliszová 2023). Second, the die, as will be discussed further in this paper, is a product of Byzantine inspiration. Mediterranean influences on the material culture of Bohemia and Moravia in the 10th and early 11th century have not been studied in depth and are rather underrated in the current literature.

We will start our analysis with a formal analysis of the artefact and the stylistic assessment of the decorative motif. Material composition analysis and geographically wide-based comparison follow. Furthermore, we will discuss how the originally foreign motifs were adapted in the local Bohemian milieu.

The site and the find context

The settlement site of Kouřim – Nad Dolnicí (49.99428N, 14.98397E) is located in central Bohemia, Czech Republic. It lies on a small promontory with a size of 3.8 ha and elevation from 270 to 280 metres above sea level. Water at the site comes from a small stream running north-east into the small Výrovka River. The promontory is elevated about 20 metres above the Výrovka (Fig. 1).

The settlement was probably part of the closest surrounding area of the Kouřim – U Sv. Jiří hillfort (Fig. 1: B), as it was located only 400 metres from its southernmost fortification. Another even closer settlement linked to the hillforts is to have been located right outside of the fortification forming its southern bailey (Fig. 1: E). Based on surface prospections that produced finds of iron slag, metallurgy and metal-smithing could also have taken place here (Tomanová 2012, Fig. 31 and 43). Therefore, two relatively contemporary production areas related to the U Sv. Jiří hillfort can be considered, though their chronological succession cannot be ruled out.

In 2012, the Kouřim – Nad Dolnicí settlement site was researched by a systematic surface prospection in a square grid (Fig. 1). The campaign revealed finds dated generally from the 10th to the first half of the 13th century (Dvořáček 2021). The pottery corresponds to production from the second half of the 10th century to the turn of the 13th century. Notably, a variant of an imported Prague chalice-shaped rim from the second third of the 10th and the 11th century was identified (Dvořáček 2021, fig. 7: 10, 8: 11). A larger amount of iron slag (151 pcs, 2 641 g) indicating the craft or production-oriented character of the settlement was recorded.

The production character of the settlement is also supported by other metal finds, particularly early medieval belt fittings: a small cast strap-end with tendril decoration from the 8th–9th century (length 34 mm, Fig 2: 4) and somewhat later gilded belt-hole guards with a raised middle, possibly with a filling liner (length 19.2 mm, Fig. 2: 3). The latter fitting does not have an intact hitch. It could mean that it was unfinished, or it was meant

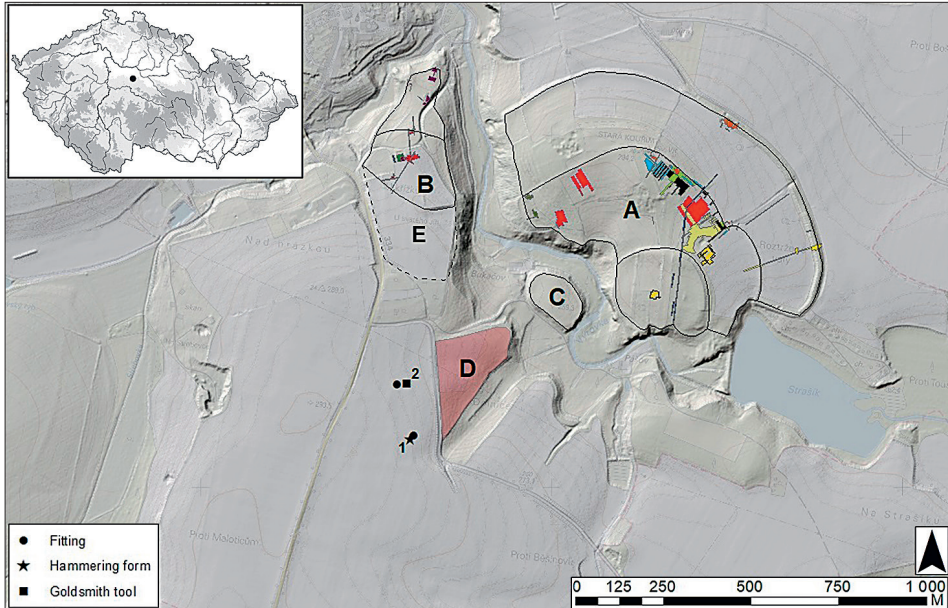


Fig. 1. Topographic situation of the Kouřim area with the main hillforts and position of the key finds from the Kouřim – Nad Dolnicí settlement. A – Stará Kouřim hillfort; B – Kouřim – U Sv. Jiří hillfort (position of trenches marked); C – Kouřim – Sv. Vojtěch hillfort; D – Kouřim – Nad Dolnicí settlement; E – assumed bailey of the Sv. Jiří hillfort; pink area – extent of systematic surface prospection in 2012.

to be glued to the leather, but this arrangement has not yet been documented. Unfortunately, belt decorations from the second half of 10th to the 11th century are not well known, since they were not placed in graves. Therefore, the dating of the gilded fitting remains rather loose, probably generally the 9/10th–11th century.

From chronologically later finds, temple-rings with S-shaped terminals of a medium and large diameter should be mentioned. A significant find is a massive bronze goldsmithing punch with a narrow working edge and traces of use¹ (length 101 mm, inv. no. A 15999, Fig. 2: 5). The only analogy from 8th–9th century is a much more delicate punching tool from nearby Tismice hillfort in the Kolín district (Profantová *et al.* 2020, fig. 46: 4) that could be dated to the interval from the end of the 8th century until the end of the 11th century. However, due to the find of the die, the simultaneity of the two items is probable. Goldsmithing production can also be assumed by the semi-finished temple-ring with an S-shaped terminal made of thick copper alloy wire (Fig. 2: 1) and a lump of amber (Fig. 2: 2, weight 2.12 g, 17 × 12 mm). The find of a lead cast, originally of a circular shape (length 26 mm, weight 9.9 g) could also be linked to metal casting and hammering.

The die that is the focus of this paper was found during metal detector prospection at the end of the year 2022 in the less-surveyed western part of the settlement area (Fig 1: 1). The artefact is currently deposited with other finds from Kouřim – Nad Dolnicí in the collection of the Regional Museum in Kolín (Inv. no. A 15991).

¹ Our thanks to L. Barčáková for the important information.

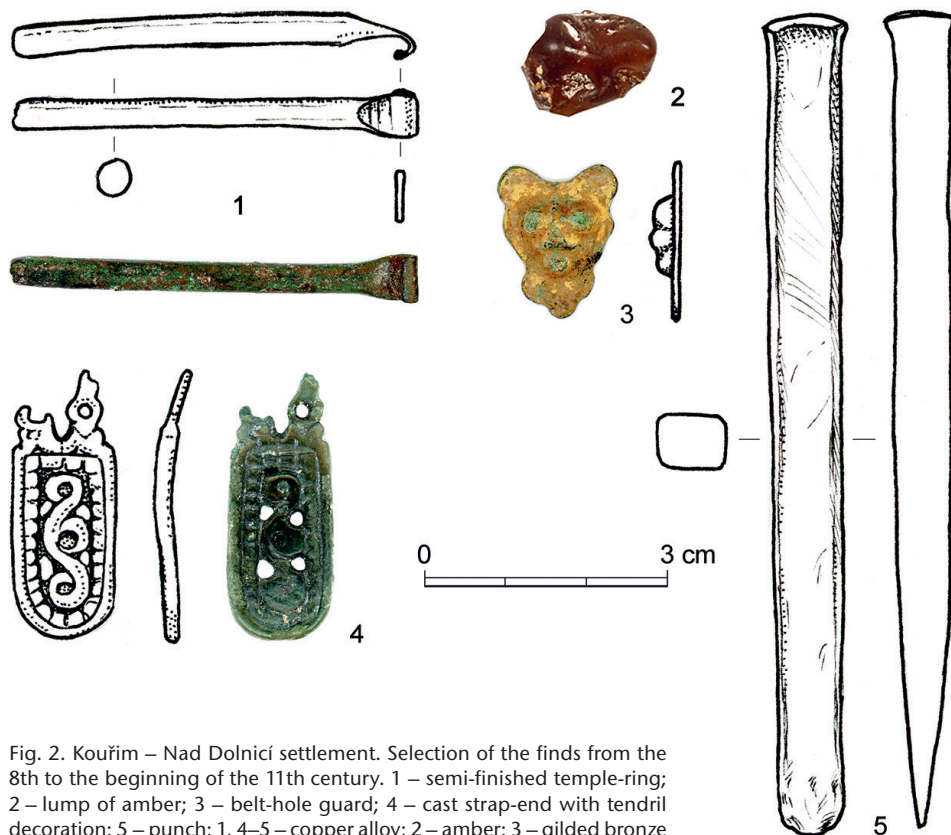


Fig. 2. Kouřim – Nad Dolnicí settlement. Selection of the finds from the 8th to the beginning of the 11th century. 1 – semi-finished temple-ring; 2 – lump of amber; 3 – belt-hole guard; 4 – cast strap-end with tendril decoration; 5 – punch; 1, 4–5 – copper alloy; 2 – amber; 3 – gilded bronze (drawing and photo by L. Raslová).

Description and analysis of the die

The die has a trapezoidal shape (Fig. 3) and has a maximum width of 36.7 mm, an upper edge of 28 mm, a height of 32 mm, and a thickness of 3 mm. The artefact weighs 26.9 g. A trapezoidal cast fitting with double relief framing and a smooth strip in the upper part is decorated by the motif of a four-legged gryphon with something akin to a collar on its neck. One of its forelegs is bent, and the hind legs are perpendicular and seemingly shorter (artistically not as well made). The claws are visible on all four legs. The eye is prolonged and there are two visible ears on its head. The wing is disproportionally small, incised folded and blends in with the ornament to form a triangle. Its tail is threaded behind its hind legs and finished by a floral palmette, where the edge leaves are coiled. The artistic depiction is complimented by the two separate areas with punched backgrounds. The thigh of the front leg and the triangle on the body symbolise the folded leg.

The artefact is a die for the production of technological type IA kaptorgas (Profantová – Šilhová 2010) belonging to the group with engraved animal decoration on a punched background. Such kaptorgas are mostly associated with a Prague workshop (Profantová – Daněček 2017, especially fig. 4, also Frolíková-Kaliszová 2023, 135ff).



Fig. 3. Die/hammering form from Kouřim – Nad Dolnicí (drawing and photo by L. Raslová).

X-ray fluorescence analysis

The surface of the die was analysed at the Institute of Physics of the Czech Academy of Sciences using the EDAX Orbis Micro-XRF Analyzer energy dispersive x-ray fluorescence micro-spectrometer (ED XRF, the size of the measuring point was $\sim 30 \mu\text{m}$), which allows the detection of the chemical elements from sodium to uranium (Na-U) during measuring in a vacuum and without the covering of the sample. Due to the uniqueness of the item, an area elemental analysis of the surface was chosen. The non-standard semi-qualitative calculations of the concentration of the elements were used for the determination of the mean chemical composition.

The values of the resulting relative weight concentrations of the detected elements/oxides were normalised to a total of 100%. Due to the corrosion of the surface, it is necessary to consider the analysis of the composition of the alloy to be only indicative; iron and tin are overstated (*Tab. 1*). The alloy is on the basis of copper alloyed with lead, tin and zinc. The other chemical elements can probably be ascribed to the contamination of the oxide surface layers. This corresponds to the presence of phosphorous (P) and other elements such as iron and silicon.

Elem	SnL	FeK	CuK	ZnK	PbL
Wt%	48.9	1.2	36.3	0.7	13
At%	38.3	1.9	53	0.9	5.8

Tab. 1. Estimate of the average concentrations of the detected elements in the upper part of the die.

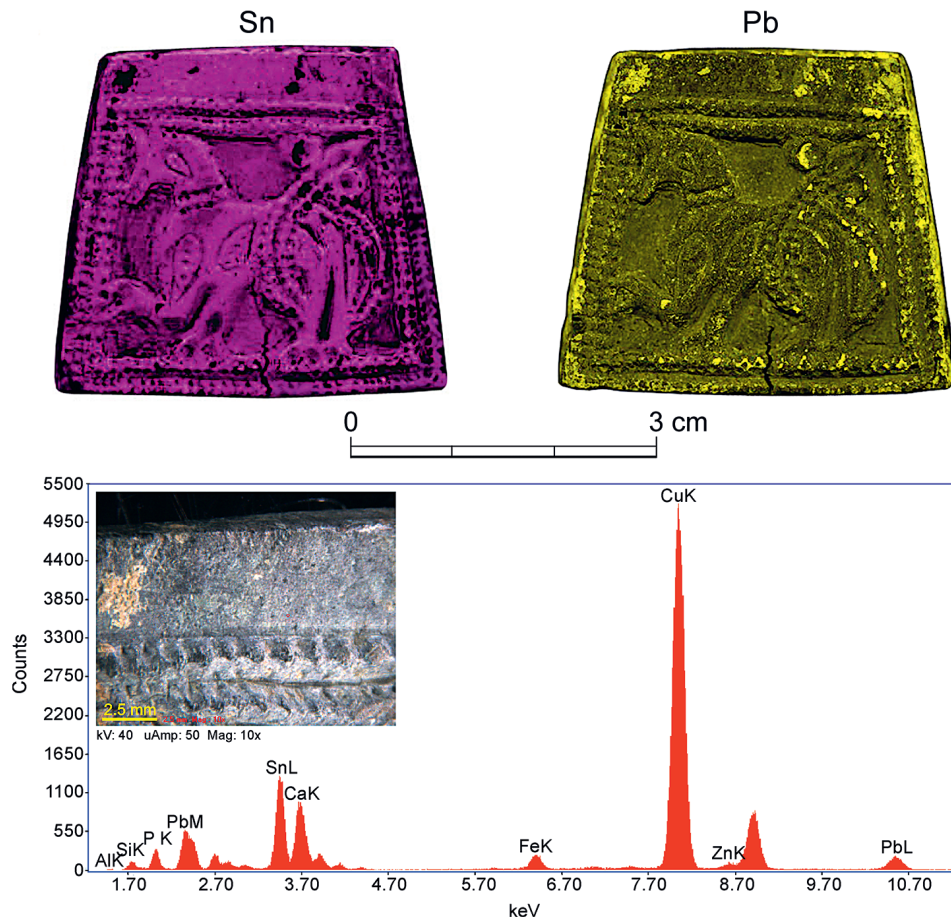


Fig. 4. Map of the surface of the hammering form according to the presence of Sn and Pb. The higher brightness represents the higher relative presence of the chemical element. XRF spectrum of the material composition of the die and the place of measurement.

Surface mapping

Representation of the specific chemical elements was measured from the obverse side with a measuring trace with a diameter of ~30 µm and the spacing between measuring points of about 100 µm (area ~72 × 52 mm, in the matrix 552 × 400 points). The representation of the chemical elements was observed on the lines of aluminium (Al), silicon (Si), phosphorous (P), lead (Pb – lines L and M), iron (Fe), copper (Cu), and zinc (Zn) (Fig. 4; Tab. 2).

Tab. 2. Estimate of the average concentrations of the detected elements on the surface.

Elem	SnL	FeK	CuK	ZnK	PbL
Wt%	33.7	1.8	34.3	0.6	29.6
At%	28.2	3.2	53.5	1	14.2

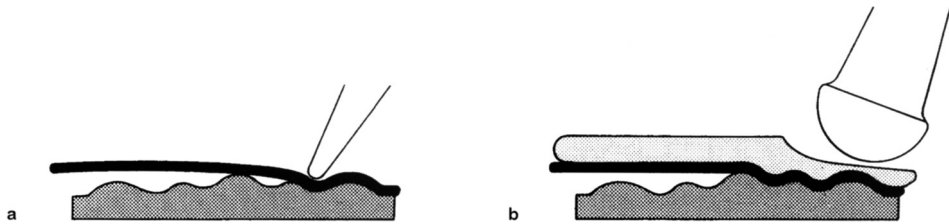


Fig. 5. a – pressed sheet production with the sheet (black) into the raised relief (grey) of the die with a point or punch; b – pressing the sheet into relief using a lead sheet (light grey) and round-faced hammer (after *Armbruster – Eilbracht 2006*, fig. 6.)

There is a significant fluctuation in the representation of tin and lead, and the share of other chemical elements is comparable in the point analysis and in the average composition of the surface. In the case of the high content of tin, we are more inclined to agree with the interpretation that there is a link to the corrosion of the surface rather than to the idea of deliberate tin-plating of the hammering form, similar to the case of the die from Tismice dated to the 8th century (cf. *Profantová et al. 2020*, 242, Tab. 8).

The hammering die was made from bronze with a significant lead admixture (close to 14%) and a small admixture of zinc; the amount of copper is strongly understated due to the corrosion. As far as we know, the only comparable artefact – the Polish die from the grave in Brześć Kujawski – has never been subjected to detailed material analysis.

Stylistic assessment and interpretation

The classification of the artefact as a hammering form for kaptorga production is supported by its size and trapezoidal shape. The robust character of the object and its weight probably rule out other possible functions. Moreover, the upper area of the artefact remained without decoration, since in the case of a finished kaptorga the decorated lid would go over it. During production, the box was put on the die and the relief was hammered into the metal sheet of the future kaptorga (*Fig. 5*).

With regards to the lack of the detailed context of the find, we have to proceed from a broad comparison and the stylistic assessment of the find.

Comparison

Based on its size, the die from Kouřim was used to hammer products that belong to the group of larger trapezoidal kaptorgas with a base over 30 mm. Kaptorgas from Dobrovíz (Praha-západ distr., 40 mm), Dobroměřice (Louny distr., 34 mm), Prague – Lumbe Garden (grave 16, 38 mm), and probably also Čelákovice (Praha-východ distr., 30 mm) are representatives of the group found in Bohemia (*Profantová et al. 2011*). The height of the Kouřim die corresponds to the complete kaptorga from Žatec and is similar to the one from Debrno (Mělník dist., 30 mm), Dobrovíz (Praha-západ distr., 36 mm), Prague – Lumbe Garden (grave 16, 31.5 mm), and to the iron kaptorga excavated in grave 31 at the cemetery in Klecany I (*Profantová et al. 2015*, 168, Tab. 12.3). The decorative framing that appears on the die is also common for kaptorgas from Bohemia, e.g. Dobrovíz (*Fig. 6: 6*),



Fig. 6. Different stylisations of the gryphon motif in the 9th–11th/12th century. 1 – Kouřim; 2, 4 – Aquilea, stone choir screen (9th century); 3 – Chefm Drezdenecki, hoard find (11th century). 5 – Paderborn, buckle (detail, 9th century); 6 – Dobrovíz (10th century). 1, 5 – Cu alloy; 2, 4 – Stone; 3 – Ag. 1. Drawing L. Raslová. 2, 5 – After *Bálint 2010*, Abb. 148; 3 – After *Śląski – Tabaczyński 1959* and *Sztyber 2006*, Tab. II; 4 – After *Knific – Nabergoj 2016*, p. 98; 6 – After *Profantová – Šilhová 2010*, fig. 8, photo: Marie Opatrná, National Museum Prague, inv. number H1-96955.

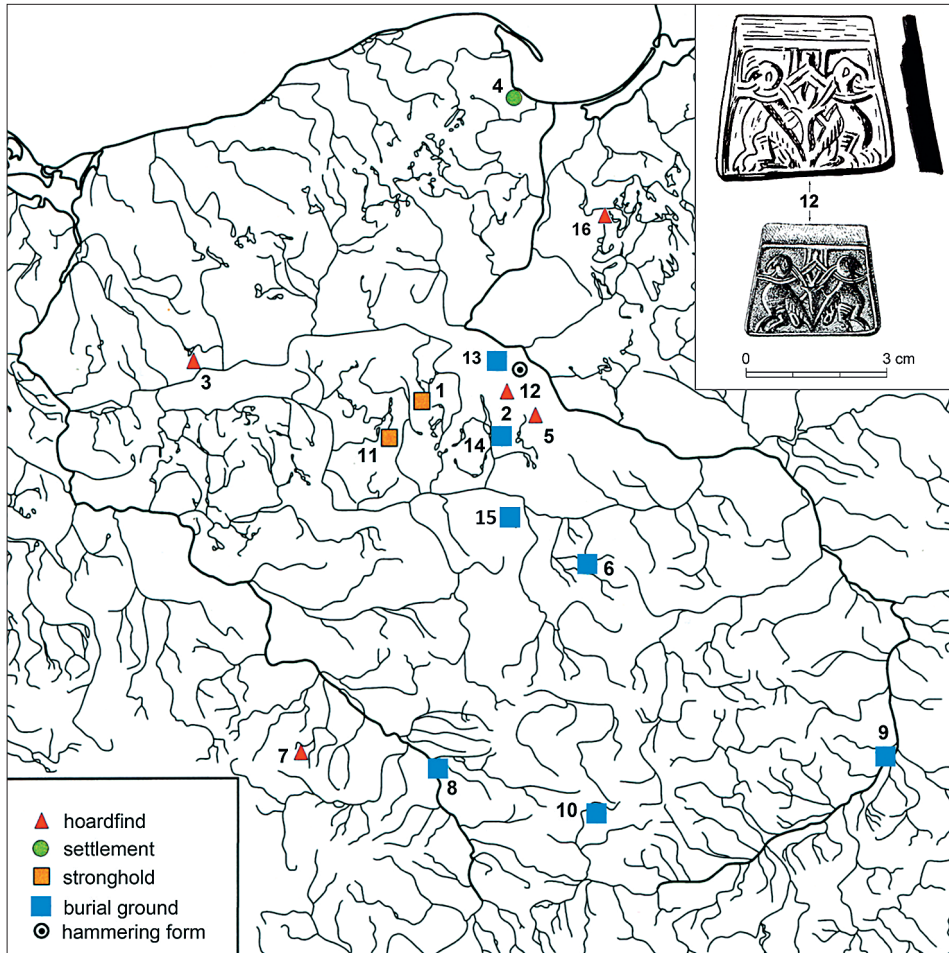


Fig. 7. Kaptorgas of type IA in Poland and the die from Brześć Kujawski. 1 – Biskupin; 2 – Borucin; 3 – Chełm Drezdenecki; 4 – Gdańsk; 5 – Maszenice; 6 – Lutomiersk; 7 – Opole; 8 – Ostrów Lednicki; 9 – Radzików II; 10 – Sandomierz; 11 – Strzemieszyce Wielkie (Dąbrowa Górnicza); 12 – Brześć Kujawski; 13 – Bodzia (imports from eastern Europe); 14 – Dziekanowice; 15 – Kwiatków; 16 – Olbrachtówek /Prabuty (map after *Szyber 2006*; *Czonstke – Koperkiewicz 2013*; die from Brześć Kujawski after *Profantová – Daněček 2017*, Fig. 4: 3).

Kováry–Budeč, (Kladno distr., *Váňa 1990* – colour photo), and Silesia, as documented in Opole – Groszowice (G. 38, *Wachowski 1975*, fig. 18: 48; *Szyber 2006*, tab. XV; *Kurasiński 2021*, Fig. 10: 3). In the case of luxurious kaptorgas, the framing is made from granulation, e.g. Prague-Lumbe Garden, grave 16 (*Ottenwelter et al. 2014*, Fig. 4/57), and sometimes only the upper part (where the lid fits) was separated by relief as on the kaptorga from Žatec and Stehelčevy (Kladno distr., *Profantová – Šilhová 2010*, fig. 11: 3; 17: 3). To date, double lining of the decorative field is very rare, as is found only on the kaptorga from the grave in Dolní Věstonice (Břeclav distr.), where the lining was made by strips of filigree (*Štefan 2005*, fig. 2:1), and on the kaptorga from Radslavice in Moravia (*Kouřil – Procházka 2018*, 60, Fig. 10: 2). In Poland, a double border was recorded on a kaptorga

from Borucin (*Sztyber 2006*, tab. 1; *Sztyber 2008* with photo). In contrast, the kaptorga from Chelm Dreźniecki has a differently designed wide border decorated by a floral motif (*Fig. 6: 3; Kryda 2021*, fig. 9), similarly to the other two kaptorgas from the hoard.

The only cast hammering form of the same shape comes from Brześć Kujawski in Poland (*Fig. 7; Kostrzewski 1962*, 256, fig. 225; *Profantová – Šilhová 2010*, 304; *Profantová – Daněček 2017*, fig. 4: 3). With a size of 42 × 33 mm, it is slightly wider than the die from Kouřim (*Fig. 3: 2*). It was also made of copper alloy. It has a plain border with a decorative field and depicts a pair of animals attached to the tree of life. According to the interpretation by *Gąssowska (1979, 138)*, it is a composite figure with the bodies of dogs with the heads of birds sitting back-to-back, supposedly a symbol ‘*originating from India and Sasanian Persia*’, but also used in Byzantine art. The authors of the published image recognised only birds with obvious predatory attributes (large beaks and claws). The hammering form from Brześć Kujawski was found in male inhumation grave no. 160 interpreted as the grave of a goldsmith even though it did not include any other tools, which surprised even the authors of the publication (*Kaszewska – Kaszewski 1971*, 382, 424, T VIII: 2). The hammering form was positioned near the left shoulder of the deceased, so it was not right by his hand. The grave with the die belongs to the same group as grave 16, which contained the silver pendant made of a part of the ‘cross denarius’ minted in Gniezno in the last quarter of the 11th century. The importance of this burial ground is also supported by the grave of a military elite member equipped with a sword and an axe. Goldsmith’s grave no. 160 was dated to the second half of the 11th century and is later than the die from Kouřim. S. Tabaczyński already remarked on the likely connection of the hammering form with the Bohemia milieu (*Śląski – Tabaczyński 1959; Kaszewska – Kaszewski 1971*).

Both hammering forms from Kouřim and Brześć Kujawski produced kaptorgas of the IA type according to N. Profantová, or the type III,² which, however, occurred rarely in Bohemia (*Profantová et al. 2015*, fig. 7.34). Type IA is the most popular type in Bohemia with finds of 23 or 24 kaptorgas (*Fig. 8; Profantová – Daněček 2017*). Most of them were made of silver, and only eight or nine were made of a copper alloy.³ These kaptorgas are made from two sheets and they easily opened and have separately made lids (see *Fig. 6: 3* with lid, *Profantová – Šilhová 2010*, with the reconstruction of the production, fig. 8). Finds of type IA are also recorded in Poland, but these kaptorgas are not as numerous in this area and come from the 11th century or later (*Fig. 7; Sztyber 2006; Sztyber 2010; Kurasinski 2021*, fig. 4; 8 and 10).

Trapezoidal kaptorgas are among items produced as more demanding jewellery and their decoration was, at least in Bohemia, highly individualised. According to the typology by *Profantová and Šilhová (2010, fig. 12)*, the positives produced by the Kouřim die would have belonged to group 1 or 2 – engraved animal motifs or those in semi-relief or,

² Type IB kaptorgas (in animal style of decoration) were found at the ‘U Libuše’ burial ground at the Stará Kouřim hillfort (*Fig. 1: A*); a less opulent type IA kaptorga is still missing among the finds from the Stará Kouřim hillfort. The Late Hillfort period (11th–12th century) burial ground near the Church of St. George no longer contains such amulets (*Šolle 1981*). The U Sv. Jiří hillfort (*Fig. 1: B*) was established in the last third of the 10th century.

³ Although the another kaptorga from Hostivice (Praha-západ distr.) has not yet been published, it was most likely made of bronze.

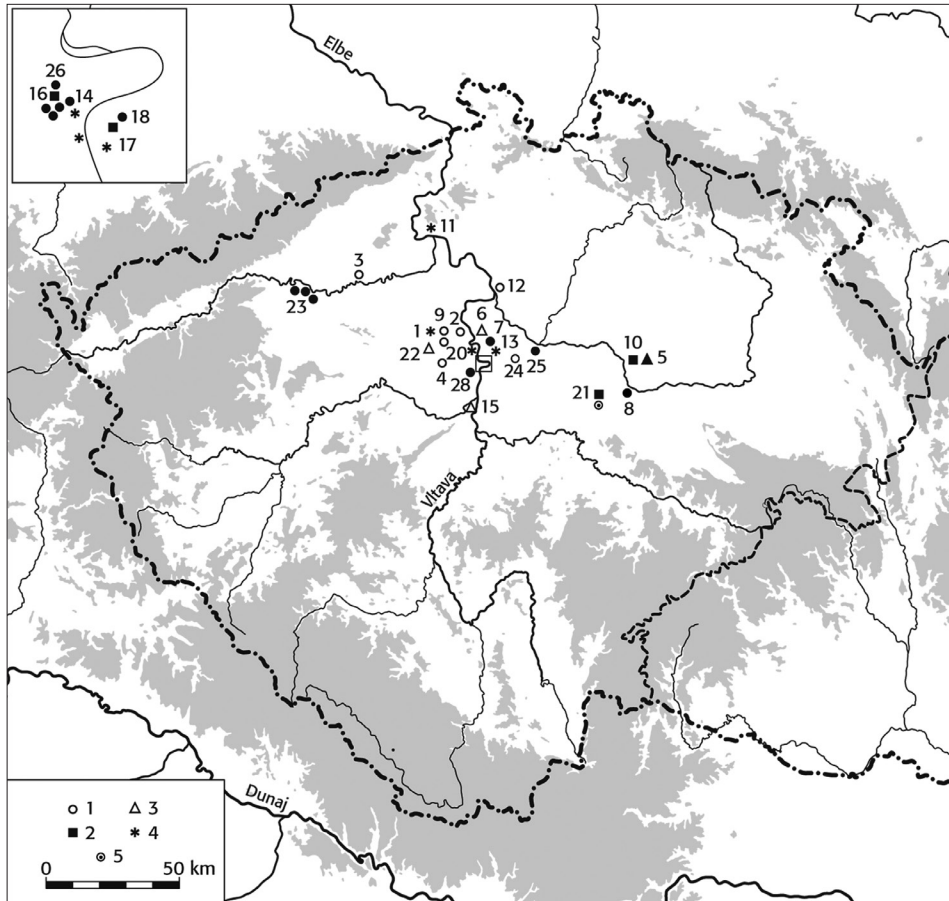


Fig. 8. Map of construction-based types of kaptorgas in Bohemia (I–IV): 1 – type IA (most numerous); 2 – type IB with sculptural animal motifs (made in Prague workshop); 3 – rare types II, III, IV, VI; 4 – indeterminate; 5 – bronze die. Filled in mark indicates that the find was made of silver. After Profantová – Šilhová 2010, fig. 14, filled in. Mentioned sites and sites with type IA: 2 – Debrno; 3 – Dobroměřice; 4 – Dobrovíz; 6, 7 – Klecany I and II; 8 – Kolín; 9 – Kováry-Budeč; 10 – Libice nad Cidlinou; 12 – Mělník; 14 – Prague-jízdárna; 16 – Prague-Lumbe Garden; 18 – Prague-Václavské nám.; 20 – Žalov; 21 – Kouřim – hillfort and Kouřim Nad Dolnicí; 23 – Žatec (3 pcs); 25 – Čelákovice; 26 – Prague-Střešovice, Triangl; 28 – Hostivice.

technically speaking, pressed ones. This is a less luxurious group of these amulets/jewellery compared to kaptorgas decorated with sculptural motifs of horses accompanied by filigree and granulation. Pressed animal motifs are known only from Dobrovíz (Fig. 6: 6), while a more primitive form was documented in Žatec (Profantová – Šilhová 2010, fig. 11: 3), and then with only symmetrical floral motifs in a similar composition in Kováry – Budeč, Kladno distr.⁴ Besides kaptorgas, a pressed animal motif is known from a similarly

⁴ The location of kaptorga no. 125/83 is not known today, though a similar piece from the same site is in a private collection. Photo Váňa 1990, colour photo, also Štefan 2005 (drawing).



Fig. 9. Veliko Tarnovo, Bulgaria. Model or die with relief gryphon, lead. After V. Pletnyov 2004, tab. 4: 49 (courtesy of the Varna Museum).

made plaque with added engraving from a rich grave in Želénky near Duchcov dated to the 9th century (*Profantová 2020*, fig. 6).

Motif of gryphon in Byzantium and its spread

The antique motif of the lion or gryphon reached its early medieval peak of popularity in Byzantium from the 5th to the 13th century. The gryphon motif appeared in a monumental version (decorated choir screens, thrones, etc.) in toreutics and metal decorations, ivory and silk, not to mention wood, which did not remain intact. The motif of a gryphon was continuously used as protection of the ruler from Late Antiquity to the Middle Ages by the Byzantine Empire and its culture sphere (e.g. *Daim 1990*).

From this epicentre, it spread in different waves northeast and northwest to central Europe, most often through the Balkans and the Carpathian Basin. The Byzantine style can be observed for instance in a depiction of a walking gryphon on the stone altar from the Basilica Santa Maria in Aquilea dated to the first half of the 9th century. There are very interesting details of the emphasised belt on its neck and tail ending in a trefoil (*Fig. 6: 2; Bálint 2010*, Abb. 148: 7). Also, a panther on the choir screen of the same church is depicted in very similar fashion (*Fig. 6: 4; Knific – Nabergoj 2016*, 98). In both cases, the beasts have ornamentally decorated thighs on their separated legs and similarly stylised claws.

The standing gryphon of the highest quality with a prominent wing made of vitreous enamel on the small plates of a diadem from the treasure trove of jewellery found in Preslav (Bulgaria) as a Constantinople import (e.g. *Atanasov 1999*, fig. 4) shows the popularity of the motif in the first half of the 10th century in Byzantium. However, more interesting from our point of view is that a lead rectangular model/die with a relief gryphon with a crescent-like wing and tail that turns into leaves while the reverse side remains smooth also comes from Bulgaria, specifically the vicinity of the later centre Veliko Tarnovo. The artefact was dated to the 10th century (*Fig. 9*). This motif was unique even for Bulgaria before 2004, when the find from Veliko Tarnovo was published (*Pletnyov 2004*, 232, tab. 4: 49). In any case, decorations with the gryphon motif were hammered in Bulgaria.



Fig. 10. Woven silk cloth with gryphon motif in a medallion of Byzantine origin, also with the decorative belt on neck (8th–11th century). Clothes played a key role in spreading the motifs along the Silk Road and in the Mediterranean (collection of Victoria and Albert Museum, London, UK, accession no. 764-1893; <https://collections.vam.ac.uk/item/O93151/woven-silk-unknown/>)

A classical hunting gryphon is depicted on red silk from the time of the wedding of Theophanu with Emperor Otto II in the year 972 (*Schneidmüller 2000*, 685, Abb. 438), and an incomplete gryphon in a medallion was found on other fabrics (*Fig. 10*: head in a medallion; pair of gryphons: e.g. Constantinople, 11th century, *Daim (ed.) 2010*, 172, no. 61, and *Stiegmann – Wemhoff 1999*, 536, with photo, similar characteristic tear shape on the leg).

On various metal and stone objects, the depiction of a gryphon appeared continuously. This involves 5th/6th–7th-century Byzantine buckles, 7th-century metal vessels like the one from Nor-Bajazet in Armenia (*Bálint 2010*, 385, Abb. 145: 1, Russian Novyj Bajazet, hoard find of silver vessels. Here too the gryphon's tail ends in a floral component), 8th-century gold belt fittings from Vrap in Albania, 10th-century vitreous enamels and other decorations as well as toreutics from the 12th century (*Fig. 6: 5*). Noteworthy among later decorations is the motif of a gryphon with a wing similar to Kouřim on the oblong area on the fields separated by tendrils on the bracelet from the 11–12th century, which is now part of the collection of the Benaki Museum in Athens (*Yeroulanou 2010*, 48, Pl. 28–27). We can assume that it is later than the gryphon depiction from Kouřim.

The Germanisches National Museum in Nürnberg holds in its collection an ivory comb with a motif of two gryphons, in this case already combined with Christian iconography directly symbolising Christ himself. The comb comes from the site of Markt Erlbach and dates to the 9th/10th century (*Wamser 2004*, 416 and photo).

In the 10th century, the gryphon motif reappeared in the Carpathian Basin, mostly on Byzantium-influenced ancient Hungarian decorations (engraved gilded bag fitting from

Tiszabездéd, *Fodor 1996*, 182–183, with photos) or direct Byzantine imports (bracelet from Szarvas with an animal without wings in medallion, *Ballók 2010*, 178, Pl. 7; also *Bálint 1989*, Abb. 100: 2).

The gryphon motif in Bohemia and the surrounding territories in the 8th–10th century

As forms of stylised of gryphon depictions spread from Byzantium in different directions, it is difficult to determine the specific route by which they reached the craftsmen working in Bohemia. From the 8th century onwards, the Carpathian Basin was evidently the most important transmitter of Byzantine motifs into the Bohemian environment, and although there is no record of the gryphon motif from the 9th century, this direction remained determinative at least until the end of the millennium. However, mediation through Dalmatia and northern Italy should be also considered (*Profantová et al. 2020*, fig. 21; *Profantová 2023*). In this context, it is worth mentioning that Stará Kouřim produced a find of a bronze encolpion with the motif of the Virgin Mary with Greek letters engraved on the reverse side, which may have been imported from the Balkans (*Profantová – Stolz 2007*).

A new hoard find with three gilded fittings with a gryphon depiction was discovered in the year 2022 in NW Bohemia; unpublished, it can be preliminarily dated to the 10th century. Depictions of gryphons are documented again from the second half of the 10th century and the beginning of the 11th century. In this period, they were used on kaptorgas. Much more commonly, gryphons were adapted on later Romanesque tiles since the second third of the 11th century (*Boháčová 2003*, 205–208).

The stylisation of the gryphon on the die from Kouřim partially corresponds to the earlier stylistic circle; the motif is of the Byzantine type, which also appeared in the Carpathian Basin. Similar bordered emphasis on the thighs, for instance, is found on the animal on the strap-end from Benepusztá dated to the 10th century, even though it was made in the niello technique and also differs from the Kouřim gryphon in other details (*László 1971*, Abb. 180–181; *Fodor 1996*, 338 in colour). A wingless variant is known from grave 550 at the Birka cemetery, but the stylisation of the animal is not as skilful, even if it is placed on a gilded background (*Hedenstierna-Jonson 2012*, Fig. 4). A different engraved depiction comes from the fitting of a rider's bag from Tiszabездéd (*Fodor 1996*, 182–183, with photos). Stylisations from the ancient Hungarian/Magyar milieu are also different from the gryphon on the Kouřim die. Other stylised openwork animals with striking tails appeared on the round braid decorations from the 10th century also from the Carpathian Basin.

The artisan who produced the hammering form from Kouřim evidently skilfully managed the front part of the gryphon, which appears rather rigid and heraldic-like. Nevertheless, he did not leave enough room for the hind legs and their appearance is thus not well rendered; however, the great emphasis on the tail executed similarly to the frame of the scene lends a certain dynamic and style to the depiction. It is particularly the threading of the tail that links it to another zoomorphic depiction on the kaptorga from grave 3 at the Dobrovíz cemetery in central Bohemia dated to the 10th century. The mythical beast of Dobrovíz is probably a lioness, as it has no mane and wings. However, its head is turned and its tail is woven behind a hind leg. The legs are so thin, especially the right front one,

that they could not support the animal, and the stylisation is completed with a floral stalk (Fig. 6: 6; Profantová – Šilhová 2010, fig. 11: 1). The scene is supplemented with relief rings at the bottom, which were probably stamped in places in only three quarters of the ring,⁵ and one of the lower corners of the kaptorga and the lid are now missing.

A silver kaptorga deposited after 1056 in the hoard from Chelm Drezdenecki (Fig. 6: 3; Śląski – Tabaczyński 1959, 16, tab. 1: 1; colour photo with all kaptorgas: Kryda 2021, fig. 9) connects it with the Kouřim form of the hind leg stylisation, but here the overall stylisation of the gryphon is different in detail. The animal has two massive wings and the head is turned towards the back. This kaptorga was made in the first half of the 11th century, so it is later than the Kouřim one. A kaptorga with a lion from Opole-Groszowice in Silesia was found in a grave with six small temple rings and glass and amber beads (Fig. 7: 7; Wachowski 1975, fig. 18: 48). It probably belongs to the circle of Bohemian production or production inspired from Bohemia. The Mediterranean influence is highlighted by the use of a palm tree motif. However, the depiction is the simplest and executed in below-average quality. The high quality of the Kouřim die is highly evident when compared to the kaptorga from Dąbrowa Górnicza-Strzemieszyce Wielkie (Tokaj 2009), where the motif differs. The gryphon, if the depicted beast is truly a gryphon, has its head turned towards the back (Kurasiński 2021, fig. 8).

In addition to the main motif, the assessment of supplemental decoration may also bring important information. The accessory circular or triangular stamps used on the Kouřim die are already known from the early appearance of the fittings with a gryphon in the Carpathian Basin at the end of the 7th century and at the beginning of the 8th century (Bálint 1989, Abb. 86; Profantová 2018b). In Bohemia, however, such elements accompanied only depictions of a lion, not a gryphon (Profantová 2018a, Abb. 6: 1) and also some floral motifs in the later 8th century (Profantová et al. 2020). During the 9th century, we can see them only in the southern and western parts of Europe, specifically on a part of a Byzantine buckle from Paderborn (Fig. 6: 5); Czech gombiks from the end of 9th–10th century have only dots on their background (Košta – Barčáková 2023). Repoussé circles were used on the kaptorga with a lioness from Dobrovíz (Fig. 6: 6) in the second half of the 10th century. Complementary engraving appears on the unpublished circular phalera from the area of Hasištejn Castle in northwest Bohemia dated to the 11th–12th century.

Discussion

Byzantine footprint in the material culture of early medieval Bohemia

Byzantine inspiration for the hammering form from Kouřim is suggested by more than just the decorative motif. The models for the kaptorgas of the main IA type were most likely Byzantine golden reliquaries, for instance the St. Zacharias reliquary from the 6th century (Profantová – Šilhová 2010, 292; Ross 1962, Pl. XXVII). The provenance of the die is also corroborated by the tradition of interactions that can be documented in our milieu on the small artefacts from the onset of the culture with Prague-type pottery in

⁵ The published drawing does not fully correspond to the photo of the rings and the remaining part of the border.

the 7th century (bronze die from Jíkev: *Profantová 2016*). The role of the intermediary of Mediterranean influences there was probably mostly played by the Avar Empire – ‘Byzantium on the Danube’ according to the meaningful metaphor of *Breuer (2005)*. Mediation through northern Italy can be also considered (*Bálint 2019*). Our understanding of the adaptation of Byzantine motifs in Bohemia is hindered by the cremation funeral rite, which limited the availability of male metal decorations in the archaeological record. Only a few are known mostly from settlements and hoard finds. Even so, we can prove both direct imports (Černošice, Domoušice: *Profantová 2021; 2023*) and the strong impulses for the local production of the metal decorations of belts and horse-harnesses. Before the middle of the 9th century, the spectrum of impetuses was significantly expanded by Carolingian influences.

The Mediterranean influence became less pronounced and immediate, with the exception of the use of ivory on the pendant from the well-known Kolín grave and some female granulated jewellery originating directly from the south or being of intermediated Moravian origin. This turn corresponds to the historical interpretation of the change in the orientation of the Bohemian milieu toward the Carolingian Empire. Nevertheless, evidence in the material culture of the 10th century, especially its second half, remains in the shadow of this expansion. In connection with Byzantine influence, we can mention only two gold coins and one silver coin (*Profantová 2008; Profantová et al. 2012; Mařík 2018*, fig. 6). Silk headbands or clothes appear repeatedly in the graves of elite men and women (Kouřim, one grave; Klecany I, two graves; Prague Castle, multiple graves; *Profantová 2008*, fig. 6). Silk comes to Bohemia from Byzanz, i.e. the Eastern Mediterranean. Rarely found cauri mussels, which are currently known from six Bohemian sites (latest *Lutovský – Špaček 2020*, 57: 4 graves in Zeleneč; also *Profantová 2018b*, 113, fig. 11: 9, 10) were more likely intermediated through Hungary rather than imported via a direct contact with Byzantium.

From the point of view of Byzantine imports, the greatest attention has been paid to reliquary crosses from the late 10th to 12th century, some of which bear Greek inscriptions (e.g. *Horníčková 1999; Profantová – Stolz 2009*). Stará Kouřim hillfort also produced a late 10th- or 11th-century encolpion imported from the Balkans with a secondary Greek inscription referring to the Byzantine environment (*Profantová – Stolz 2007*). Many patterns were available for a variety of stylisations on kaptorgas in central Europe, some of which were probably on silk (*Fig. 10*). The central motif of the gryphon on kaptorgas has been interpreted in Polish literature (e.g. *Kóčka-Krenz 2014; Zawol 2018*, 474–476, 489) as a Christian symbol for the dual nature of Christ, divinity and humanity; the guardian of the souls of the dead and the peace of paradise. While we can find applicable parallels in the Christian context, e.g. Aquilea (*Fig. 6*; the latter is also preferred by some Polish authors for the gryphon and lion from Chełm Drezdenecki or Opole-Groszowice), we can work with just as many references to non-Christian settings (symbol of good, the guardian of the ruler). This corresponds to most of the depictions, with the exception of the kaptorga from Radslavice – Zelená Hora in Moravia with the motif of Christ’s baptism in Jordan from the end of the 11th century (*Kouřil – Procházka 2018*, 60, Fig. 10: 2). Also, a kaptorga with a Christian motif of the ‘*Dextera Domini*’ was found in Polish Dziekanowice (*Wrzesiński – Wyrwa 2011*).

Nevertheless, most of the animal motifs on 10th-century kaptorgas can be convincingly linked to pre-Christian symbolism. In one case, the motif of two doves by the tree of

life, adapted from Byzantine silk, was applied on the Hostivice kaptorga from the late 10th century. This originally Christian motif changed its meaning by replacing the doves with two birds of prey, which were more conventional for a secular milieu (*Profantová – Daněček 2017*). Given the wide dating interval of their use, both interpretations are equally likely, except perhaps that the later part of the interval is more Christian and the earlier part pre-Christian (with a lack of clear and direct references to Christian symbolism).

Dating

Given the context of the find (or rather its absence), the die from Kouřim can only be based on stylistic assessment and other indications. The style of decoration corresponds to a relatively wide interval from the turn of the 10th century to the end of this same century. The vast majority of finds of Bohemian kaptorgas come from this period. They come from burial complexes, i.e. from contexts that allow more reliable dating considerations than in the case of the Kouřim finds. For instance, the newly excavated kaptorga from the Žalov – Na Panenské cemetery is small (18.3 mm × 14.96 mm) and decorated with granulation (*Dvořáček 2023*). The grave with this kaptorga was radiocarbon dated to the interval 772–950 cal AD at 95% probability.

Also, two complete kaptorgas from Kováry–Budeč (*Fig. 7: 9*) – the only examples from 29 Czech kaptorgas found in a settlement context – are reliably dated to the 10th century (*Profantová – Šilhová 2010; Štefan 2005, fig. 5: 5*). Although the interval to which we date the Kouřim – Nad Dolnicí settlement is too wide (9th/10th century – mid-13th century) to allow for more precise dating, it does not cast doubt on our 10th-century dating by stylistic analysis and regional context.

Conclusion

The hammering form from Kouřim represents unique and the earliest evidence of the production of kaptorgas. It is the first find of this type in the Czech Republic and the second in Europe. The die bears the well-made motif of a four-legged gryphon, a motif of the Byzantine type. Thus, this hammering form belongs to artefacts that put the permanency of the Byzantine (Mediterranean) influence in central Europe in concrete terms. It documents how the Mediterranean motifs spread over long distances, often through textile models and the adaptation of such motifs in the Bohemian milieu, e.g. in the case of kaptorga from Hostivice. Kaptorgas with a gryphon motif could be products made by ‘barbarian/local’ craftsmen using common (Byzantine?) technology, as F. Daim proposes in his typology (type 4, *Daim 2010, 61*).

Besides the die itself, its context is also important. The settlement of Kouřim – Nad Dolnicí also revealed other proof of jewellery production: a goldsmithing tool, a lump of amber, and a semi-finished earring from thick wire. Given the quality of the jewellery, it is obvious that the artisan worked for the elite from the Kouřim political centre. The Nad Dolnicí settlement, however, remained untouched by the power struggles of the second half of the 10th century and the relatively loose dating of the hammering form makes it impossible to decide whether the local goldsmiths worked for the Stará Kouřim hillfort or the later U Sv. Jiří hillfort.

The die is also the first direct proof of the assumed significance of Kouřim as a centre of crafts, more specifically jewellery making, as the model for hammering gombiks from Stará Kouřim hillfort (*Šolle 1966*, grave 110, Pl. XXIII: 2) likely cannot be interpreted in this way.

Generally, finds of kaptorgas are sparser in the Kouřim and Kolín area than in the broader Prague area/Lower Vltava region, an image perhaps caused by the uneven excavations of inhumation burial grounds in Bohemia, as kaptorgas are often found in graves due to their protective role during the passing of females to the netherworld. The technique and motif of the die from Kouřim show it was produced outside the circle of the ‘Prague workshop’ (*Profantová – Daněček 2017; Profantová 2022; Frolíková-Kaliszová 2023*) and thus document that goldsmithing of a high quality also developed in Bohemia in the 10th century independently of the Prague centre.

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