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MARCHER CASTLE ON FIRE.

AFTERMATH OF A 15TH CENTURY SIEGE

Abstract: Castle Kolno was set afire and put to ruin on the day of St. Margaret 1443 in the course of the so-called succession war in Silesia. The main purpose of this paper is to present the possible interpretation of selected pieces of archaeological evidence for this dramatic event. Destruction layers documenting the siege contained finds of medieval arms and armour. The exchange of crossbow fire during the hostilities must have been tremendous as confirmed by the high number of bolt-finds. Moreover, there is evidence of the use of firearms in the conflict. On the basis of the most numerous finds of militaria, such as projectiles, pieces of armor and riding gear, one can draw general conclusions on the character of 15th-century warfare. Much earlier objects related to the origins of the castle, its function as a border fortress guarding the ducal custom house, as well as those documenting the daily life of its inhabitants were also found in this context. The presented discussion aims to address the problem of chronological inconsistencies among the artifacts from the destruction layers. The objective of this paper is not a thorough analysis of particular artifacts, but a preliminary presentation of the most interesting militaria collected from the site and the discussion on their value as archaeological evidence.

Keywords: arms, armour, medieval, siege, Bolesław III the Generous

Castle Kolno is located on a floodplain, south of the village of Stare Kolnie, where the Budkowiczanka and Żydówka distributaries branch off the mainstream of the Sobrava River (coordinates: N: 50°50'32.45"; E: 17°39'58.98")

Originally the fortress guarded the border between the Duchy of Opole and the Duchy of Brzeg. It was set afire and put to ruin on the day of St. Margaret 1443 in the course of the so-called succession war in Silesia.

Some authors believe that Castle Kolno (Coln, Cal- len, Kallen) was founded at the end of the 13th century by Duke Henry V the Fat of Jawor and Brzeg. Plausible as it may seem, we hardly can find written evidence for its 13th century date. The name Kolno is most probably of Slavonic origin and could be translated as „a settlement surrounded by palisade”

This suggests an original earth and timber castle on the sight. Most recent archeological excavations at the castle wall suggest a 13th century chronology of the main structure built of cobblestone. Archeological trenches have also revealed relics of a bridge leading from the high castle to the bailey which was located on a small island. Bridge posts made of timber were subject to dendrochronological analysis, which confirmed their early 14th century date. This correlates with refurbishment works at the castle commissioned by the duke in 1318. The first owner of Kolno to be well confirmed by written sources in 1317 is duke Bolesław III the Generous of Legnica and Brzeg – member of the Polish royal Piast dynasty. The duke is known from a series of representations on seals and in contemporary sculpture. Most probably another fragmented effigy of this ruler was found in the moat of castle Kolno during two excavation seasons: in 2016 and 2017 (Fig. 1) The unique representation had been modelled out of clay in high relief and openwork before being glazed all over. It shows a knight in full armour, wearing a crested great helm with mantling. He is holding a shield of the petite ecu type – characteristic for the 1st half of the 14th century. The great helm is equipped with a ventilation hole in the form of a Greek cross. The artist placed it in an unusual position to make it clearly visible and to highlight the Christian character of the pictured warrior. The latter

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1 See: Fig. 9.
2 Michael 1931a, 312; Michael 1931b, 316; Michael 1931c, 320.
3 Borek 1988, 48.
4 I owe my deepest gratitude to Dominika Chmura (student of Archaeology), for the most meticulous, careful and successful search for the missing elements of this unique object.
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is represented in a long tunic with a pattern of rectangular fields. If it was meant to depict armour the tunic could be interpreted as a simplified representation of a mail hauberk or, which seems more likely, as a pair of plates or scale armour. Mail at this time was most commonly covered by the textile surcoat. Perhaps the intention of the clumsy artist was to represent the surcoat instead of armour. In this case the scale-like appearance of the tunic would be only meant to resemble the heraldic chequered gules-argent pattern known from the coat of arms of duke Bolesław III of Legnica and Brzeg. Even if our last interpretation is incorrect, the duke could be identified by the heraldic emblem placed on his shield – the eagle used by Silesian Piasts. Moreover, a distinctive feature is the peculiar inverted cone-shaped crest on his helmet. It was used specifically by Bolesław III the Generous and is known from several of his seals dated to the 1st half of the 14th century⁵ (Fig. 2). It could be also observed in one of the most spectacular representations of the duke as a mounted knight in tournament armour on the keystone of the ducal chapel in the Cistercian monastery in Lubiąż. The chapel was founded by Bolesław III in 1311 and finished in 1320-1330⁶. The knight on the keystone is wearing a textile surcoat over his mail hauberk (Fig. 3). Interestingly, in the ceramic effigy from Kolno the duke is armed only with a lance. He is sitting in a saddle equipped with a high cantle – useful during the tilt. His caparisoned charger is most probably also barded. Outlines of lames of a crinet hidden under the caparison may be clearly observed.

Fig. 1. Effigy of a Silesian duke – most probably Bolesław III the Generous, castle Kolno, Opole District, 1st half of the 14th century, stove tile. Photo L. Marek.

Fig. 2. Seals of duke Bolesław III the Generous showing his cone-shaped crest on the great helm, 1312-1331. After Matejko-Peterka 2016, Figs 20-21.

Fig. 3. Key stone with the effigy of Bolesław III the Generous, ducal chapel, Lubiąż, 1320-1330. After Witkowski 2010, Fig. 24.

Fig. 4. Seal stamp with the inscription; S. NICOLAI (Sigillum Nicolai), castle Kolno, Opole District, early 14th century. Photo L. Marek.

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⁵ Matejko-Peterka 2016, 117-118.
⁶ Witkowski 2010, 16.
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Plausibly the artifact found in the moat of Castle Kolno could be interpreted as a stove tile. If our hypothesis is correct it would be the earliest stove tile with glazed relief decoration found in Poland known in the literature. The fact that other stove tiles of a different type were found in its proximity seems to validate this interpretation. Adding to its uniqueness it is most probably one of the few representations of Bolesław III the Generous – the owner of Castle Kolno, found exactly on the site. Although very simplified, it also remains interesting for students of medieval arms and armour. According to the analysis of costume and heraldic details, the discussed effigy should be dated to the 1st half of the 14th century. The context of the find is considerably later. In my opinion it should be dated to the direct aftermath of the siege recorded in the written sources. In one of the documents it is mentioned that the fortress was put to ruin and set afire on St. Margaret’s day 1443 (July, 13th). After those dramatic events the castle was dismantled and the debris pushed into the moat. The destruction layer consisted of mixed stone and brick rubble, timber construction elements, parts of the castle’s interior furniture, miscellaneous household equipment, table- and kitchenware. Among them there are pieces which could be dated over a century earlier than the disastrous downfall of the castle – such as shards of glass vessels imported in the 14th from southern France or northern Italy, and the mentioned artifact interpreted as a stove tile with the effigy of duke Bolesław III the Generous (Fig. 2b).

Finds of a 14th century date, recorded along the bridge in locations remote from the moat’s bank could have been lost during everyday situations by the users of the bridge. Perhaps the seal stamp of an early 14th century date with a heraldic device and inscription *S. Nicolai* (Sigillum Nicolai) (Fig. 4) found in the moat-fill stratas might have been lost by an unfortunate owner not long after the time of its manufacture.

The baselard dagger (Fig. 5) excavated from the moat and dated to the latter half of the 14th century could have been used well into the 15th century, and even in hand to hand combat during the siege of 1443. Almost the entire hilt of the baselard dagger is made of boxwood with a washer cut out of oak wood, separating the guard from the grip. We can find analogues to such a hilt in Silesian funerary sculpture. A good example is the grave effigy of duke Bolko I of Opole from the early 1380s (Fig. 3c).

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7 Sommersberg 1729, 80: Castrum Callen ruptum fuit: Ipso die S. Margarethae & diebus sequentibus raptum & exustum fuit castrum Callen prope Bregam.
8 The origin of such finds is confirmed by specialist analysis of glass fragments from the moat.
9 Dimensions given in centimeters: – overall length: 20.05; length of the hilt: 8.7; thickness of the grip: 1.8; width of the guard: 5.5; height of the guard: 1.1; thickness of the guard: 1.4; width of the blade: 2.1; thickness of the blade: 2.1; weight: 28.51 g.
Fig. 7. Dagger blade, late 14th-early 15th century, castle Kolno, Opole District. Photo L. Marek.

Fig. 8. Fighting knife, 15th century, castle Kolno, Opole District. Please notice the nicks on the blade. Photo L. Marek.

Fig. 9. LIDAR map of site: Stare Kolnie No. 4 (Castle Kolno), with the location of trench B/2012 set over the original moat (marked with letter B). After M. Mackiewicz, with additions by L. Marek.
More such analogues can be found in 14th century works of art and archeological records from Italy, Switzerland, Germany\textsuperscript{10}, Great Britain and the Netherlands\textsuperscript{11}. Apart from the baselard there is one strong blade with a short false edge (Fig. 7) which might have originally belonged to a ballock knife.

More obviously related to the 15th century siege are crude and roughly made fighting knives found in the castle moat. One of them with its heavily nicked blade (Fig. 4:b) probably was involved in hand to hand combat.

Even stronger evidence for the 15th century hostilities are entirely preserved bolts, bolt shafts and bolt heads collected from the battle related layers of the moat fill. The number of artifacts belonging to this category reaches over 170. All of the wooden bolt shafts and shaft-fragments were found in the moat (see: Fig. 9, 10). One of them, already published in the literature was cut out of alder\textsuperscript{12}. From six found in 2014, which underwent specialist analysis four were made of spruce (Fig. 11:a-d)\textsuperscript{13}, one of fir (Fig. 11:e) and one of ash (Fig. 11:f). This seems to confirm the initial hypothesis that there was no firm rule concerning the choice of material used to manufacture bolt shafts. They were expendable weapons designed just for one action. Therefore there was no need to pay too much attention to their quality. Randomly selected material proved sufficient for the production of bolts. The demand for the latter, even during a single medieval siege was enormous\textsuperscript{14}. This could be also confirmed by the abundance of bolt-finds concentrated in a relatively small area of the castle moat to be investigated archeologically.

Most common finds related to late medieval distance weapons in Poland are iron heads of diamond or square section equipped with a socket or a tang. In late medieval

\begin{table}[h]
\begin{tabular}{|c|c|c|c|c|}
\hline
No. & Overall Length & Thickness of the Shaft Near the Socket & Thickness of the Shaft at the But of the Bolt & Weight (Preserved) \\
\hline
1 & 40.3 & 1.35 & 0.8 & 28.51 \\
2 & 30.3 & 1.35 & 0.8 & 9.63 \\
3 & 27.4 & 1.15 & 0.7 & 9.57 \\
4 & 5.4 & 1.0 & 0.93 & 0.93 \\
5 & 30.4 & 1.1 & 0.6 & 7.4 \\
6 & 31.3 & 1.2 & 0.4 & 21.7 \\
\hline
\end{tabular}
\end{table}

\textsuperscript{10} For reference see: Martin 1967; Schneider 1977; Boccia and Scalini 1982.

\textsuperscript{11} Zijlstra-Zweens 1988, 116-124.

\textsuperscript{12} Marek 2013, 292-293.

\textsuperscript{13} Dimensions in centimeters: No.1 – overall length: 40.3; length of the head: 8.8; socket length: 4.2; max. width of the head: 1.4; thickness of the shaft near the socket: 1.15; thickness of the shaft at the butt of the bolt: 0.7; weight: 28.51 g; No.2 – overall length: 30.3; thickness of the shaft near the socket: 1.35; thickness of the shaft at the butt of the bolt: 0.8; weight: 9.63; No.3 – overall length: 27.4; thickness of the shaft near the socket: 1.35; thickness of the shaft at the butt of the bolt: 0.8; weight: 9.57; No.4 – overall length (preserved): 5.4; thickness of the shaft near the socket: 1.0; weight (preserved): 0.93 g; No.5 – overall length: 30.4; thickness of the shaft near the socket: 1.1; thickness of the shaft at the butt of the bolt: 0.6; weight: 7.4 g; No.6 – overall length: 31.3; length of the head: 5.8; socket length: 1.7; max. width of the head: 1.5; thickness of the shaft near the socket: 1.2; thickness of the shaft at the butt of the bolt: 0.4; total weight: 21.7 g; weight of the head: 16.84 g. Please note that the weight of the shafts is considerably lower than the original weight due to the destruction of wood during hundreds of years of deposition.

\textsuperscript{14} Strickland and Hardy 2011, 125.
Silesia the crossbow was favored over other types of long range weapons. Therefore such artifacts may be plausibly identified as crossbow bolt heads. In other regions of Europe the interpretation is more complicated. We find similar heads on ordinary arrows, bolts and arrows fired from early firearms. According to some authors the diameter of the socket when it exceeds 1.4 cm is a distinctive feature which helps to identify iron heads as belonging rather to crossbow bolts than to war bow arrows. It seems however that the opinion needs to be confirmed by more evidence and verified after more thorough investigations. The pitfalls of establishing a criterion to distinguish arrow-heads from bolt-heads are clearly visible in the discussion on the weight of the analysed projectiles. According to the literature the average length of medieval bolts is c. 39 cm, the thickness of bolt-shafts is c. 1.5 and the entire weight of bolts is c. 60-70 g. The most common opinion was that

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Fig. 11. Bolts and bolt-shafts found in the moat of castle Kolno in 2014, 15th century: a – No. 1, shaft made of spruce; b – No. 2, made of spruce; c – No. 3 made of spruce; d – No. 4, made of spruce; e – No. 5, made of fir, f – No. 6, shaft made of ash. Photo L. Marek.

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15 Compare: Tittmann 1995, 57; Marek 2014, 32-34: discussion on arrows shot from firearms; Strickland and Hardy 2011, 27: discussion on bolt-type iron heads used for long bow arrows.

16 Strickland and Hardy 2011, 27.

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The average bolt weight should be 30-40 g\(^{18}\). Many authors established their own lowest weight limits for bolt heads such as: 22, 25 or 28 g respectively\(^{19}\), and classified all of the iron heads under these limits as belonging to arrows. Eventually B. Zimmermann\(^{20}\) questioned the most common opinion on the value of weight limits, and proved beyond any doubt on the basis of entirely preserved bolt collections from castle Habsburg and from Lötschenpass in Switzerland, that as many as ⅔ iron heads (which could be detached from their shafts) of the series weighs under 25 g, and in a few cases the bolt heads are even lighter than 20 g\(^{21}\). Moreover, when comparing the discussed projectiles it is worth stressing that the weight of the head does not seem very relevant in categorizing them to different classes; e.g., arrows for long war-bows from the time of the battle of Agincourt reached the total weight of 113 g – a value exceeding considerably the average weight of bolts shot from a hand crossbow (60-70g)\(^{22}\).

Crossbowmen involved in the siege were accompanied by handgonners. The use of medieval handgonnes at the castle is confirmed by cylinder-shaped lead projectiles excavated on the site. Their counterparts could be easily found in archeological evidence collected at German, Dutch, Bohemian and Moravian castles, from the late 14th to the late 15th century contexts\(^{23}\). In old Polish sources such projectiles, called „pieńki“ (stumps) are still mentioned in the early 19th century as useful for bear hunting\(^{24}\). One specimen found at Kolno was analysed by the expert of ballistics Maciej Kuliczowski. He was able to confirm that it had been fired from a primitive barrel and bears traces of impact (Fig. 12:a). Yet another piece of evidence for the use of firearms at the siege is a splinter of a blown up handgonne (Fig. 12:b)\(^{25}\) found in 2017 in the destruction layers filling the castle’s moat. The splinter comes from a barrel which was originally cast out of copper alloy. It could be identified as the butt of a handgonne with the remains of a touch hole. The latter being split in half is still very clearly visible (Fig. 12:b). The barrel had been circular in a cross sectional view, which is not the most common trait of handgonne barrels of this time. A similar splinter of a polygonal cross section\(^{26}\) was excavated at castle Karpień, which had been destroyed during the same military campaign of 1443 as Castle Kolno. Apart from the obvious fact, that barrel splinters are enough evidence for the unreliability of early firearms, or the lack of standardized powder charges, the Karpień find, on the basis of specialist analysis\(^{27}\), confirms the low quality of 15th century bronze cast handgonne barrels used in Silesia. Future specialist analysis of the new Kolno find could also bring interesting results.

Relatively common pieces of armour found during excavations at Castle Kolno are brigandine scales and links of mail. The most spectacular find however is a relatively large plate with a row of rivet heads along its edge. Probably it could be interpreted as piece of a breast- or backplate (Fig. 13) belonging originally to a pair of plates. This artifact, when excavated was extremely fragile and probably already devoid of its iron core in the result of a rapid corrosion process and exposition to high temperature. It is still undergoing conservation, and will be available in the future for more detailed analysis. What can easily be observed on the surface of this object is gray and red fire

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\(^{18}\) See: Zimmermann 2000 – for the discussion on the subject.

\(^{19}\) Compare: Průhoda 1932, 45; Wachowski 1982, 186; Krenn 1985, 47; Zimmermann 2000, 20.


\(^{23}\) See: Janská 1963, 242; Vránová and Vrána 2008, 459; Strzyż 2014, 118-120.

\(^{24}\) Kiersnowski 1990, 77.

\(^{25}\) Dimensions in centimeters: caliber – c. 1.4; thickness of the walls of the barrel: 1.3; preserved length: 3.1; preserved width: 3.4; preserved touch hole diameter: 0.4; preserved weight: 51g.

\(^{26}\) Marek and Konczewski 2010, 93-117.

\(^{27}\) Miazga 2010, 117-120.
The role of Castle Kolno in the settlement structure, the trade and administrative systems of medieval Silesia could hardly be underestimated. Its original purpose was to keep the rapidly developing settlement of foreign colonists in the area under control. Another important role of the castle as a fortress located on the border of the duchy was to safeguard the ducal custom house which collected custom duties from merchants entering the ducal domain. Still in the 15th century the marcher castle of Kolno held its strategic value in the region. The downfall of the fortress in 1443 left well recognizable archeological evidence. A great abundance of pieces of arms and armour found during the excavations and surface surveys on the sight is most probably the result of only a few days of military campaign. Especially noteworthy in this case is a great number of crossbow-bolt finds recorded in destruction layers filling the original moat of the castle and in surface stratas on the sight. The presence of objects of a 14th century date in a 15th century archeological context cannot be considered here as an unusual situation. Particularly, the long life of weapons and armour in the medieval period has been often evidenced in the literature. Objects found in the debris pushed down into the moat such as the mentioned 14th century stove tile, are obviously part of the 15th century destruction context. Some of the bolt-heads and pieces of armour collected on the site are coated with fire patina. Such artifacts contribute to other archeological evidence confirming the destruction of the castle by fire such as burnt wooden construction elements and charcoal. The mention: exustum fuit castrum Callen prope Bregam known from the written sources may be now positively verified by archeology. Literally the border of the duchy of Legnica and Brzeg was set afire in the year of 1443 and one of its most important marcher castles – Kolno ceased to exist, never to be rebuilt again.

Bibliography

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28 See: footnote No. 7
Streszczenie

Warownia graniczna w ogniu. Ślady po oblężeniu średniowiecznego zamku

Zamek Kolno, znajdujący się na granicy księstw legnicko-brzeskiego i opolskiego został spalony i zrujnowany w dzień św. Małgorzaty 1443 roku podczas wojny sukcesyjnej na Śląsku. Głównym celem naszych rozważań były możliwości poznania przebiegu tego dramatycznego wydarzenia na podstawie wybranych źródeł archeologicznych. Warstwy związane z oblężeniem i zniszczeniem zamku zawierały liczne elementy uzbrojenia, wśród których dominowały groty bełtów lub bełtów zachowanych wraz z brzechwami. Liczba ponad 170 zabytków wymienionej kategorii świadczy o intensywności ostrzału podczas zaledwie kilku dni oblężenia zamku. W wyniku analiz specjalistycznych ustalono, że cztery brzechwy bełtów wykonano z drewna świerkowego, a pojedyncze z jodły, jesionu i olszy. Różnorodność ta świadczy, że brzechwy te powstały z materiału, który był ogólnie dostępny. Kwestią mało istotną był dobór gatunku drewna, najbardziej odpowiedniego do tego celu. Na stanowisku znaleziono istotne dowody na użycie broni palnej podczas walk o zamek. Oprócz znanych już w literaturze, poddanych badaniom balistycznym ołowianych pocisków, w 2017 roku odkryto fragment rozsadzonej wybuchem, brązowej lufy piszczeli lub hakownicy. Większość zabytków pozyskanych podczas badań archeologicznych na zamku Kolno trafiła do ziemi w 1. połowie XV wieku w wyniku zniszczenia warowni. Niektóre XIV-wieczne przedmioty odnalezione wzdłuż reliktów drewnianego mostu, wiodącego z zamku górnego na wyspę podgrodzia, jak np. typariusz z napisem S Nicolai czy puginał o bukszpanowej rękojeści w typie basilardu mogły być przypadkowo zagubione przez właścicieli znacznie wcześniej niż w 1443 r. Inne, jak kafel z 1. połowy XIV wieku z przedstawieniem księcia śląskiego – prawdopodobnie Bolesława III Rozrzutnego trafiły do fosy wraz z gruzem pochodzącym ze zniszczenia warowni, zaraz po jej zdobyciu w XV w. Przedmioty takie jak fragment naplecznika z pancera typu płaty, który można datować na schyłek XIV i początek XV w., noszą ślady patyny ogniowej i stanowią kolejne dowody na prawdziwość znanej ze źródeł pisanych wzmianki, że zamek Kolno znajdujący się na granicy księstwa legnicko-brzeskiego został w 1443 r. zdobyty i spalony.