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## RESEARCH IN CASTLES LOCATED IN THE MAZOVIAN-PRUSSIAN BORDER ZONE

**Słowa kluczowe:** średniowieczne budownictwo militarne, zamki krzyżackie, badania zamków

**Schlüsselwörter:** mittelalterliches Militärgebäude, Burgen des Deutschen Ordens, Festungsuntersuchungen

**Keywords:** medieval military building, Teutonic castles, stronghold investigations



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### Keywords

This article examines current research on medieval castles situated in the Mazovian–Prussian border zone. Castles described in this article include structures located in Brodnica (*Strassburg*), Działdowo (*Soldau*), Bratian, as well as bishop strongholds in Kurzętnik (*Kauernick*) and Lubawa (*Löbau*). This article attempts to demonstrate their defensive application and the possible interpretations in light of recent discoveries. Even though the title of this paper refers to the castles' location in the Mazovian–Prussian border zone, it has to be taken into account that the geopolitical aspect of this location is treated in general terms. Whereas the castles in Brodnica and Działdowo were located directly at the border between Prussia and Mazovia, the strongholds in Kurzętnik, Bratian and Lubawa that were situated in the Drwęca valley cannot be classified as strictly border-zone castles. The aim of this work is to examine whether castles located at border areas have specific characteristic features, for instance, increased defensive (military) functions, or whether they adhered to a “standard” construction scheme.

### Brodnica Castle

The commander's seat in Brodnica was one of the greatest Teutonic castles (it was erected in the place of a most likely wooden defensive structure mentioned in 1285). The first stage occurred between the beginning of the 14<sup>th</sup> century and ca.

1317. In this phase, peripheral walls together with a tower and some structures surrounding the internal courtyard were constructed. Simultaneously, the outer castle that had served as a military camp until the castle wings were built was fortified. Subsequently, in years 1317–1339 the structure of the convent was completed (the first commander of Brodnica is mentioned in 1337). Around 1387, the so-called New House was erected in the outer castle. The final phase was related to Nicolai Fellenstein, a builder of Malbork (*Marienburg*) castle, and occurred about 1415<sup>1</sup> (reconstructions on the castle's Zwinger and the erection of two low round towers). The latest part of the convent house was the northwestern wing and a gradually built open arcade. A stone well with a bottom filter was situated in its northwestern outpost and constituted its integral part. A tree-ring dating of the wooden well lining conducted by Zielski (AD 1347) afforded new insights into the dating of different castle parts. In this context, it should be noted that the dedication date of the chapel known from sources to have taken place in 1339, indicates that in the 30s and 40s of the same century, the construction of the southwestern and southeastern wing was completed<sup>2</sup>. This rather late dating of the wooden well lining appears quite puzzling – does it mean that the castle started its operation only at the end of the first half of the 14<sup>th</sup> century, even though some sources claim that at least two commanders of Brodnica had already resided in it? The function of a small cellar situated next to the well, often interpreted as a “cistern”, is equally mysterious. It is possible that it might have served as a fridge in which products were stored in ice. Earlier plans suggest that it was connected to the adjacent cellar and a courtyard, which has been proven inaccurate.

Finally, the function of a room (cellar) with preserved relics of a stove in the type of a hypocaust found in front of a gate calls for explanation. Inside the furnace chamber three brick ribs and a pile of field stones were discovered. It is possible that the installation served to heat the room for the guards.

The most important discoveries were made in the north wing of the castle that displayed an intact system of cultural layers exceeding the thickness of 4 m, dated in broad chronological frames to the 14<sup>th</sup> – 18<sup>th</sup>/19<sup>th</sup> century. It included multiple finds, above all a stationary installation in the form of a hot air stove in the type of a hypocaust used as a heating system for the castle. In the foundation section, the stove was made of stone, while in the upper parts it was built with handmade Gothic brick. The structure had a rectangular shape of 280 cm by 470 cm. The stove

<sup>1</sup> J. Salm, *Brodnica*, in: *Leksykon zamków w Polsce*, ed. by L. Kajzer, J. Salm, S. Kołodziejki, Warszawa 2004, pp. 110–113; B. Wasik, *Budownictwo zamkowe na ziemi chełmińskiej od XIII do XV wieku*, Toruń 2016, pp. 299–303.

<sup>2</sup> *Visitationes episcopatus Culmensis Andrea Olszowski culmensi et pomesaniae episcopo a. 1667–1672 factae*, ed. B. Czapla, Toruń 1904.

consisted of two parts: the so-called furnace chamber and prefurnace chamber. The furnace chamber of internal dimensions 250 cm by 150 cm, contained traces of four brick furnace ribs in its lower section, which most likely supported a pile of field stones used to accumulate heat (a number of such stones was found in the furnace chamber fill). The prefurnace chamber was situated north of the furnace chamber. The stove walls were preserved in about 50% of their original height. In the layers related to the discovered hypocaust stove relics, two small bracteates (probably coming from the mint of Torun, dated to the beginning of the 14<sup>th</sup> century), ceramic vessels of the "siwak" type, fragments of Siegburg pottery, glass fragments, window glazing, and many iron objects were found. An especially exceptional find that has been recovered was a reliquary cross (encolpion) of a provincial-Byzantine provenience, probably a souvenir from a pilgrimage to the Holy Land<sup>3</sup>.

An interesting discovery was made during excavations of the castle well. In 1997, explorations of the well were carried out until the depth of 900 cm, of which the last 160 cm required the use of a submersible mine pump because the layers were located in a hydrated zone.

### Bratian Castle

Bratian castle, a seat of advocates (Ger. Vogt) dependent on the commandery of Malbork, no longer exists. It was built around 1340–1360 at the mouth of river Wel that flows into the Drwęca river. This advocate residence co-existed with advocate administration established in Nowe Miasto Lubawskie (*Neumark*) in years 1325–1334<sup>4</sup>. Since the territory of Bratian district was largely covered with forests, the duties of the Teutonic official presiding over the castle included the organisation of hunting expeditions for the Grand Master of the Teutonic Order and other Teutonic notables. With respect to this fact, it is interesting that the preserved inventory records of the commune do not mention any game nor hunting tools. Furthermore, according to Sławomir Józwiak, the office of the Bratian advocate was usually appointed to Teutonic officials in the last stage of their careers<sup>5</sup>. Grand Master Henryk Dusemer (1345–1351), and later Kunon von Liebenstein (died 1392) spent their final years in the castle. The tombstone of the latter that has been preserved in the parochial church in Nowe Miasto Lubawskie is an outstanding example of medieval sepulchral art<sup>6</sup>.

<sup>3</sup> K. Grażawski, *Odkrycia na zamku krzyżackim w Brodnicy w świetle badań w latach 1992–1997*, in: *Pogranicze polsko-pruskie i krzyżackie*, ed. by: K. Grażawski, Brodnica–Włocławek 2003, pp. 355–357.

<sup>4</sup> S. Józwiak, *Powstanie i rozwój struktury administracyjno-terytorialnej zakonu krzyżackiego na Kujawach i w ziemi chełmińskiej w latach 1246–1343*, Toruń 1997, p. 256.

<sup>5</sup> Idem, *Polowania wielkich mistrzów zakonu w wójtostwie bratianskim w XIV początkach XV wieku*, *Zapiski Historyczne*, 2002, t. 67, z. 2, pp. 7–16.

<sup>6</sup> K. Wróblewska, *Gotycka płyta nagrobna Kunona von Liebenstein w Nowym Mieście nad Drwęcą*, *Ko-munikaty Mazursko-Warmińskie* nr 3, 1961, pp. 329–332.

Only a stone-brick section over 10 m long of the castle wall and a fortified tower have been preserved. The reconstructions of the stronghold have been carried out so far on the basis of an unproven hypothesis according to which the castle was built on a regular plan with four corner towers, which suggests a close connection with Świecie (*Schwetz an der Weichsel*)<sup>7</sup>. Based on hitherto unknown iconographic sources, Tomasz Torbus provided some new data<sup>8</sup>, reaching a conclusion that the castle had a square plan with an internal courtyard and a tower of a round base and polygonal body placed in the northwestern corner. A spacious south approach of the castle might have been surrounded by walls with two round towers and a gate house. The reconstruction of the stronghold also includes four wings connected by oval corner towers. According to the extant iconography, the northeastern wall was a dominant donjon in this arrangement. Leszek Kajzer suggests that Bratian castle had a nearly square shape with four houses built around the courtyard and four cylindrical towers significantly protruding from the structure's body<sup>9</sup>. The author considers this design an import from western Germany, similar to the building of the Cologne archbishop residence in Zülpich<sup>10</sup>. It is, therefore, a reference to a Rhineland model, the so-called Wasserburg, that is a water castle (like Świecie). The latest verifying-evaluation research has revealed a partially preserved stone brick Zwinger wall, and cultural layers filling up the water moat that consist of river sand and gravel snail shells, as well as some remnants of water plants.

The castle was demolished in the late 18<sup>th</sup> or early 19<sup>th</sup> century. What did Bratian castle look like in the era of the battle of Grunwald? In light of the surviving iconographic data, the question of its plan is controversial. The basic reconstruction was an outcome of Johann Heise's research, which was complemented by a schematic drawing presented by T. Torbus, and an image of the castle preserved on a metal plate found in the niche of the main altar in the St. Thomas parochial church in Nowe Miasto Lubawskie. Due to the schematic representation of the main castle tower pierced by multiple window openings as well as the castle chapel windows of clearly a post-Gothic shape recorded on the metal plate image, it is thought that the castle was significantly reconstructed in the 17<sup>th</sup> or 18<sup>th</sup> century. It is, thus, unclear in what way this image relates to the 18<sup>th</sup> century figure showing ogive blends and Gothic chapel windows published by Tomasz Torbus. Further doubts arise from the fact that Johann Heise drew the castle's peripheral wall with a dashed line<sup>11</sup>.

<sup>7</sup> K. H. Clasen, *Die mittelalterliche Kunst im Gebiete des Deutschordensstaates Preussens*, Bd.1, Die Burgen, Königsberg 1927.

<sup>8</sup> T. Torbus, *Die Konventshuser Grossgebietersitzedes Deutschen Ordens in Deutsch Ordensland Preussen*, Hamburg 1998.

<sup>9</sup> L. Kajzer, *Siedziba biskupów chełmińskich w Lubawie na tle budownictwa Państwa Krzyżackiego w Prusach*, in: *Zamek w Lubawie. Dawniej i dziś*, ed. by L. Kajzer, Lubawa 2001, pp. 111–130.

<sup>10</sup> Ibidem, pp. 118–119.

<sup>11</sup> L. Kajzer, *Siedziba biskupów chełmińskich w Lubawie na tle budownictwa Państwa Krzyżackiego w Prusach*, w: *Zamek w Lubawie. Dawniej i dziś*, ed. by L. Kajzer, Lubawa 2001, pp. 111–130.

According to the preserved written sources, owing to its location close to the Mazovian border, Bratian castle had a strategic military function. Sheep and horse farming was also an important source of its income<sup>12</sup>.

According to Jan Salm, the ruins of the castle were to be replaced with a mill probably in 1914. However, this assumption is inaccurate, as the mill was in fact constructed south of the castle. Apart from evaluation excavations in the potential Zwinger area, the research team of the Pruthenia Research Association conducted underwater explorations in the former moat area and a section of the Drwęca river. The explorations of Drwęca were aimed to discover relics of a bridge that once led to the gate at the stronghold's approach. Only the excavations in the moat area yielded some finds in the shape of ceramic shreds (of the "siwak" type), fragments of masonry stove tiles and iron ferrules.

### **Kurzętnik Castle**

The former residence of the Chełmno (Culm) Chapter was constructed on an elongated hill situated on the left edge of the Drwęca valley. A brick castle was built from glacial erratics in the middle of the 14<sup>th</sup> century (perhaps after the Lithuanian invasion of 1331). In 1414, the castle was ravaged by Polish troops, and in 1454, it was conquered and burnt down by the Teutonic Knights. It was, however, damaged most severely during the Swedish Deluge, and it had to be afterwards demolished. The castle had a rectangular shape of 25 m by 28 m. It consisted of the so-called main house in the southern part, and a 60 m long trapezoid outer castle stretching out north with a rectangular tower house that measured 8 m by 13 m. Two fortified towers were situated at the longer sides of the outer castle walls. The main part of the stronghold was also surrounded with a wall.

The initial excavation research conducted by the Archaeological Expedition in 2012 was focused on the outer castle area. The works were carried out by Venustats Foundation, Przestrzeń Pogranicza from Brodnica and the Battle of Grunwald Museum in Stębark, and financed by the Communal Office (Urząd Gminy) in Kurzętnik. Due to moderate funds obtained for the research, the excavations were limited to a small evaluation trench 2m by 4m close to a southwestern fortified tower. In this place, cultural layers of a considerable thickness (2.7 m) pointed to the long-lasting economic activity in the area. Apart from multiple metal finds and ceramic fragments recovered from the trench, some interesting remains of stone brick architecture were also found. These finds suggested a wall relic of undefined household building. The trench yielded 24 metal objects, mainly nails and small

<sup>12</sup> M. Milewska, Sprawozdanie z badań archeologicznych prowadzonych na zamku w Działdowie w latach 1981–1989, Warszawa 1990 (typescript).

ferrules as well as one arrowhead. In the designated outer castle area, further 103 metal objects were located with the help of a metal detector. They included 11 arrowheads, a bracteate, multiple nails and ferrules. Their concentration lay west of the southwestern trench corner.

A ground penetrating radar survey conducted in the outer castle yielded some results that may suggest the existence of thick cultural levels in the eastern part of the investigated area. In this very place, a concentration of metal finds was located, which point indirectly to a former intensive use of this site.

As in the case of Bratian, underwater survey was also conducted in Kurzętnik – first in the area of the current bridge crossing, and later – down the Drwęca river. This exploration was carried out in cooperation with the Academic Underwater Research Club at the Nicolaus Copernicus University in Torun, and the Academic Divers Club at the Warmia Masuria University in Olsztyn. 60 m away from the modern bridge, a stone pile forming a kind of a transverse dyke, 4 m wide and 40 m long, was located on the river bed. Fragments of late medieval and contemporary pottery as well as nails and ferrules were found in the structure's area. Many similar finds have been discovered in Kurzętnik bishop castle that seemed to come from the period of its and the nearby town's operation.

### **Działdowo Castle**

Działdowo Castle is located on an artificially heaped up mound on the north right bank of the Działdówka river. Its earliest mentions date from 1331–1335. So far, the traces of this early structure have not been discovered. In the first stage, the keep was built, which, in comparison to the preserved one, lacked the granary floor provided with a shooting gallery situated directly under the roof. In the second phase, peripheral walls were constructed, as well as the gate tower, the entrance gate, the north tower, and the external peripheral wall around the Zwinger and the outer castle walls. A connector was constructed along the northwestern wall which linked the keep with the gate tower that was running on the second floor and above. Most likely, it had a form of a wooden building supported on columns. Covered wall foundations are a clear indication that the gate house was constructed in the same period as the curtain walls<sup>13</sup>. The gate tower situated at the right hand side of the gate passage has a square plan of a 13.5 m side-length and two cellar floors (formerly perhaps 4–6 floors). The bottom floor was probably provided with a stone vault ceiling, the top-most – with a wooden ceiling. The lower floors were most likely used as a prison.

In the third stage, two brick wings, a northeastern and southwestern one, were built. In the same period, in the ground floor of the keep (Main House) was

<sup>13</sup> Ibidem, p. 11.

provided with a rib vault ceiling leaning on transverse arches that was additionally supported by pillars on its outer perimeter. The initial wall divisions were ignored. In some places, vault brackets were supported on sealed window and door openings<sup>14</sup>. In the middle room, in its northern part, a small compartment was designated for a *hypocaust*<sup>15</sup>.

A spacious outer castle stretched from the north and west. Apart from craft workshops, it accommodated a mill, brewery and fullery. From three sides, the access to the castle was restricted by marshes, while from the fourth side it was blocked by the Działdówka river. Two towers were located at the driveway – one round, built on the octagonal plan, and one quadrilateral gate tower that has already been mentioned. The excavations conducted in the castle in 1981–1989 mainly focused on the southern and northern outer castle, while the main courtyard was less extensively explored. Unfortunately, this survey failed to yield any new discoveries related to the castle's structure apart from the remains recognized by the researchers as well situated next to the southeastern wall of the main house. Small trenches were also dug outside of the house walls and north–west of the curtain wall. It may be assumed that the northwestern wing was built after the Lithuanian invasion of 1376. This dating is supported by a Teutonic quarter piece coin (Ger. *Viertelstück*) recovered from a burnt layer that may be related to the damage caused by the Lithuanian invasion. These coins were in use in 1360–1380<sup>16</sup>. Izabela Galicka associates the expansion of the castle with the establishment of a advocate governance in Działdowo, and dates it to 1383. If this dating is accepted, it has to be noted that the expansion might have begun in 1383. The excavation research conducted by Karolina Blusiewicz suggests that the northwestern wing lacked cellars. Initially, the lowest floor had been divided into two unequal rooms (of which only two pillars now remain), and later a small room was added<sup>17</sup>. In the last medieval stage, the main building was further extended by a granary floor, like in the case of the northeastern and southwestern wing. According to Galicka, these additions were introduced before 1383 (with regard to this point she contests the other dating proposed by Ernst Gall, a German researcher, who dated the changes to a relatively peaceful period between 1383–1410). This standpoint is supported by the findings of Mieczysław Haftka who observes that in 1407, a substantial sum of 1397 Marks was spent on masonry work<sup>18</sup>. During archaeological excavations, the depth of the

<sup>14</sup> I. Galicka, Działdowo. Zamek krzyżacki, Warszawa 1959, (typescript) WUOZ Olsztyn.

<sup>15</sup> W. Galicki, Działdowo. Zamek krzyżacki. Badania architektoniczne, Warszawa 1959, (typescript) WUOZ Olsztyn

<sup>16</sup> M. Milewska, op. cit.

<sup>17</sup> K. Blusiewicz, Sprawozdanie z badań archeologicznych przeprowadzonych na zamku w Działdowie w 2008 r., Warszawa 2008, (typescript) WUOZ Olsztyn.

<sup>18</sup> M. Haftka, *Zamki krzyżackie w Polsce. Szkice z dziejów*, Malbork 1999.

foundations was estimated to be 5.5 m. The castle was an economic and territorial unit independent from the town that first served as a seat of an advocate, and then of a advocate.

### Lubawa Castle

The castle in Lubawa was the main residence of the bishops of Chełmno. The lack of written sources prevents us from defining the beginnings of the castle. At the same time, archaeological finds do not suggest the existence of an older, perhaps wooden, stronghold or a fortified settlement in this place. The commencement of construction work is usually dated to the first decade of the 14<sup>th</sup> century during the time when Herman von Prizn held the office of the bishop of Culm<sup>19</sup>. Bogusz Wasik believes that the construction started later. Contrary to Kajzer, who perceived some analogies between Lubawa castle and the stronghold in Papowo Biskupie (*Bischöflich Papau*), which would testify to the early origin of the former, Wasik has noticed more significant parallels between Lubawa castle and the structure of conventual buildings in Radzyń Chełmiński (*Rehden*) and Brodnica (such as Zwingers, house turrets, and larger dimensions of the main structure) whose construction started only in the 1320s. If this was indeed the case, then the erection of Lubawa castle might be linked with Mikolaj Afri (1319–1323), or even bishop Otto (1323–1349). The later dating seems to be supported by the fact that St. Anna parish church dated to the 2nd and 3rd quarter of the 14<sup>th</sup> century was built from bricks similar in terms of size and ceramic ornament forms<sup>20</sup>. The castle development occurred in several stages. In the first one, a curtain wall and towers were built. In the same period which coincided with the rule of Bishop Wikbold Dobilstein (1363–1385), three wings with cellars were constructed: the northern, southern and eastern. The fourth, western wing was built when Arnold Stapil held the office of the Culm bishop (1402–1416)<sup>21</sup>. In this manner, the castle received its final four-wing form. A large outer castle with household buildings that stretched north of the castle was divided from the main part by a moat with a drawbridge. Both the main and outer castle were provided with wells. The third construction stage was related to the introduction of firearms and changes that the fortress had to undergo in order to accommodate the new type of weapon. In this period, a massive fortified tower protruding from the southeastern corner of the Zwinger was constructed. The latest archaeological excavations on Lubawa castle were conducted by a team led by Adam Mackiewicz. These works uncovered large parts of the main castle

<sup>19</sup> Ch. Hermann, *Mittelalterliche Architektur in Preussenland. Untersuchungen und Frage der Kunstlandschaft und Geographie*, Petersberg–Olsztyn 2007.

<sup>20</sup> B. Wasik, op. cit., p. 310.

<sup>21</sup> A. Andrzejewski, L. Kajzer, M. Lewandowski, *Badania archeologiczno-architektoniczne prowadzone w latach 1998–2000*, in: *Zamek w Lubawie. Dawniej i dziś*, ed. by L. Kajzer, Lubawa 2001, pp. 41–86.

together with an outstanding amount of moveable finds, such as pottery, glass and metal fragments, including several hundred coins related to different periods of the stronghold's operation<sup>22</sup>.

### Conclusions

Returning to the question posed at the beginning of this paper, regarding the specific character of the described castles located at the Prussian–Masovian border, I conclude that they did not have any particular defensive features that would distinguish them from other similar structures situated in the interiors of the two regions. On the other hand, they were certainly better supplied and armed (Brodnica, Działdowo), which might have played an important role during their long-lasting sieges (e.g. Olsztyn in Warmia).

Kazimierz Grążawski, *Z badań zamków na pograniczu mazowiecko-pruskim*

Streszczenie

Artykuł prezentuje przegląd nowszych badań nad zamkami doby średniowiecza na pograniczu mazowiecko-pruskim. Uwzględnione tu zostały nie tylko zamki krzyżackie ale także warownie biskupie. Wśród nich znalazły się zamki zakonne w Brodnicy, Działdowie, Bratianie a także biskupie jak w Kurzętniku, Lubawie. Starano się ukazać ich walory obronne jak i możliwości interpretacyjne w kontekście nowych odkryć

Tłumaczenie Kazimierz Grążawski

Kazimierz Grążawski, *Von der Erforschung von Burgen an der Grenze zwischen Masowien und Preußen*

Zusammenfassung

Der vorliegende Artikel ist ein Überblick über die Forschungsergebnisse zu den Burgen der makowisch-preußischen Grenzregion (Brodnica, Działdowo, Kurzętnik, Bratian, Lubawa). Ihr unterschiedlicher Erhaltungszustand der historischen Substanz und der Erhaltungsgrad der historischen Quellen sowie der Fortschritt der archäologischen Forschung bestimmen die Möglichkeit der Rekonstruktion von Bauzuständen und der Form des Festungskörpers.

Übersetz von Kazimierz Grążawski

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<sup>22</sup> A. Mackiewicz, Sprawozdanie z badań archeologicznych przeprowadzonych na zamku w Lubawie w 2016 r., Olsztyn 2017 (typescript) WUOZ Olsztyn.

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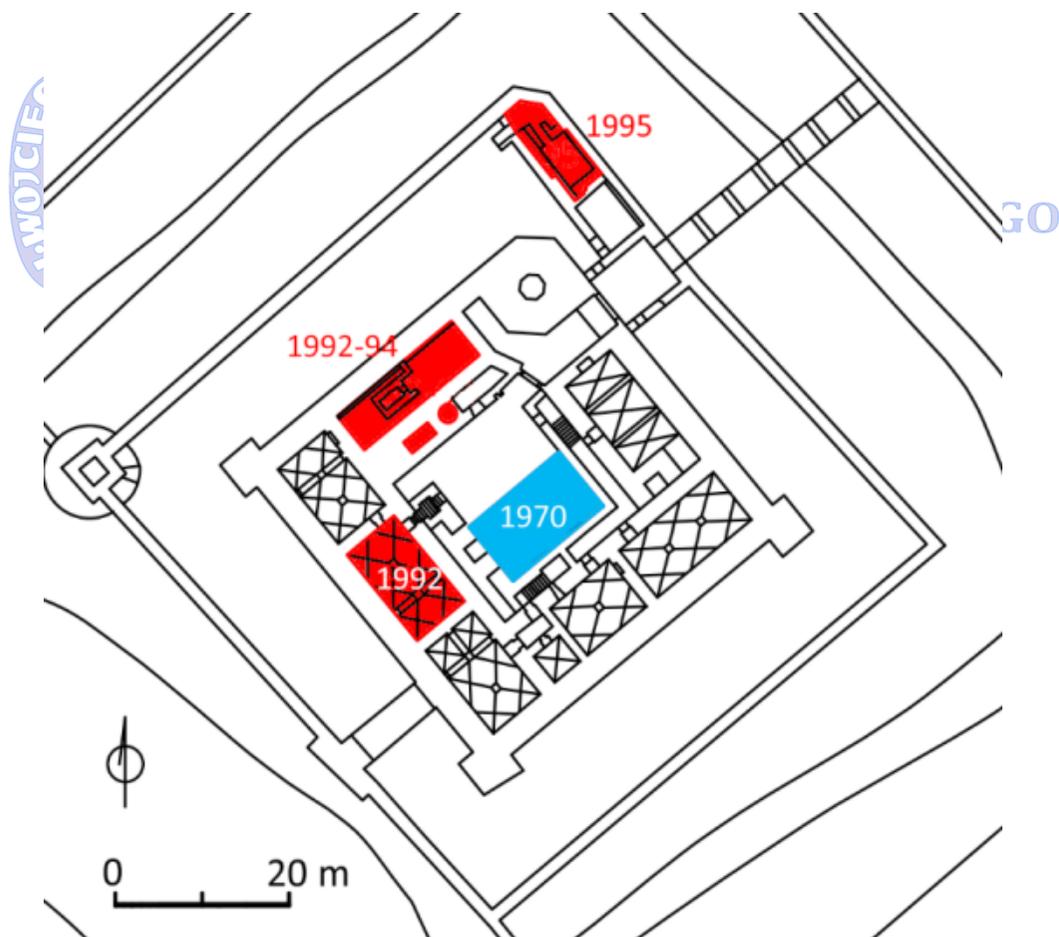
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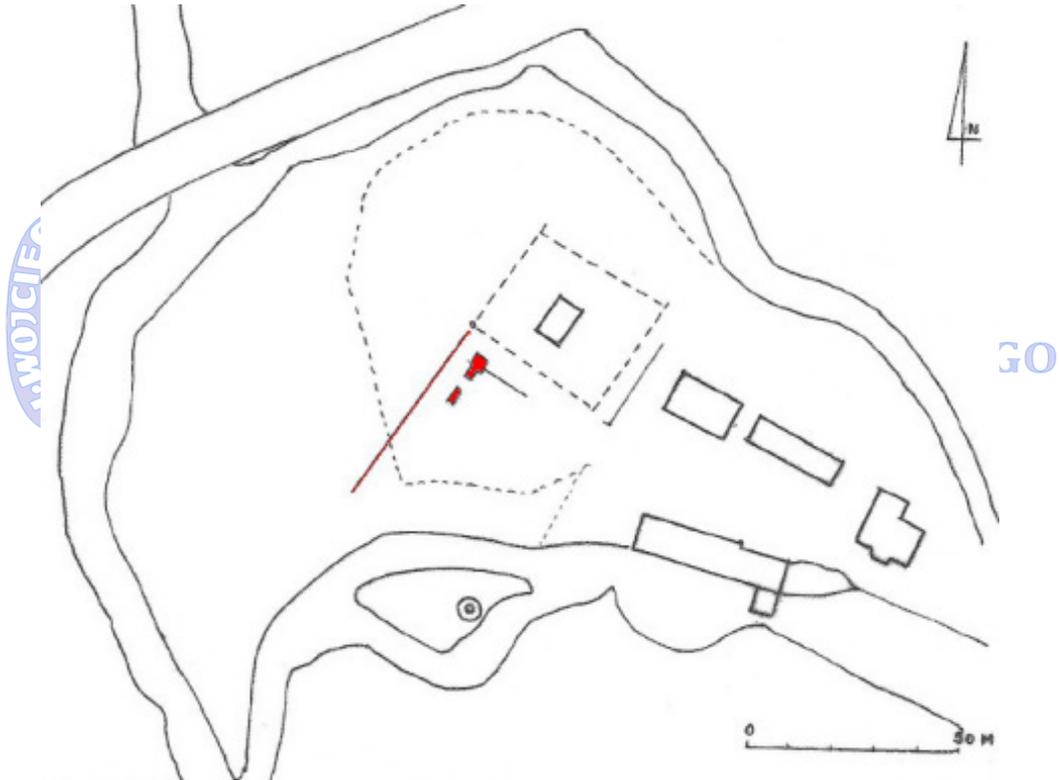
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Wróblewska Kamila

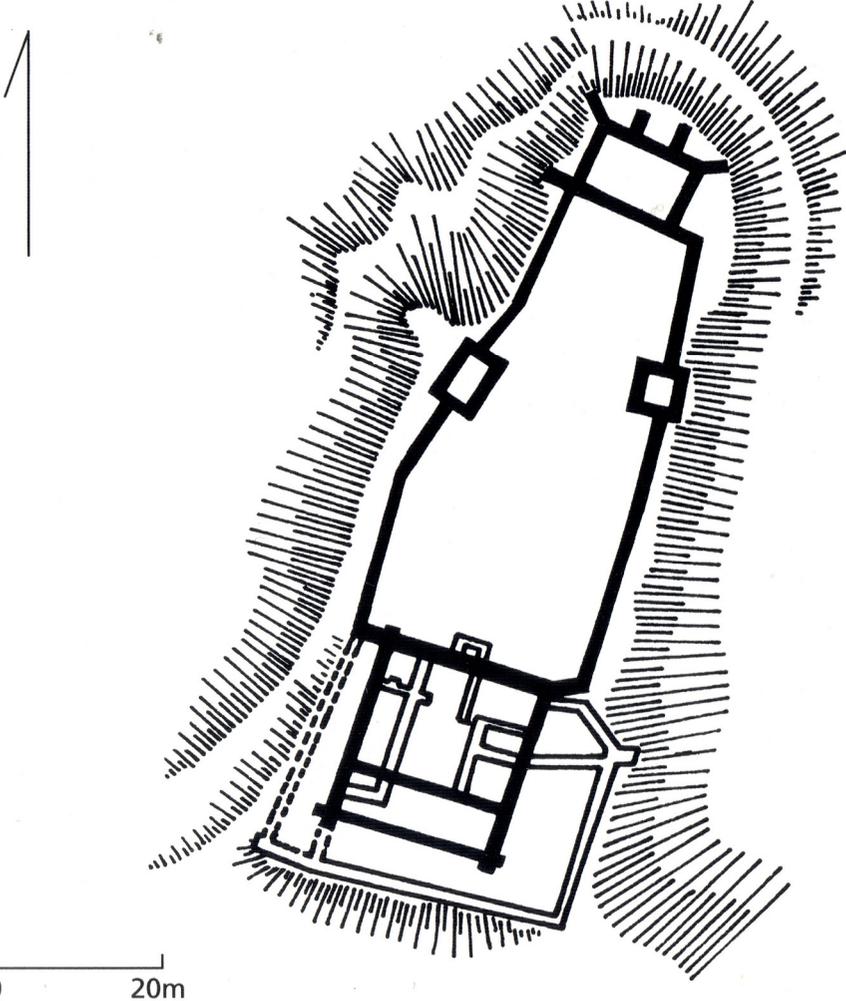
1961 *Gotycka płyta nagrobna Kunona von Liebenstein w Nowym Mieście nad Drwęcą*, *Komunikaty Mazursko-Warmińskie* nr 3, 1961, pp. 321–354.



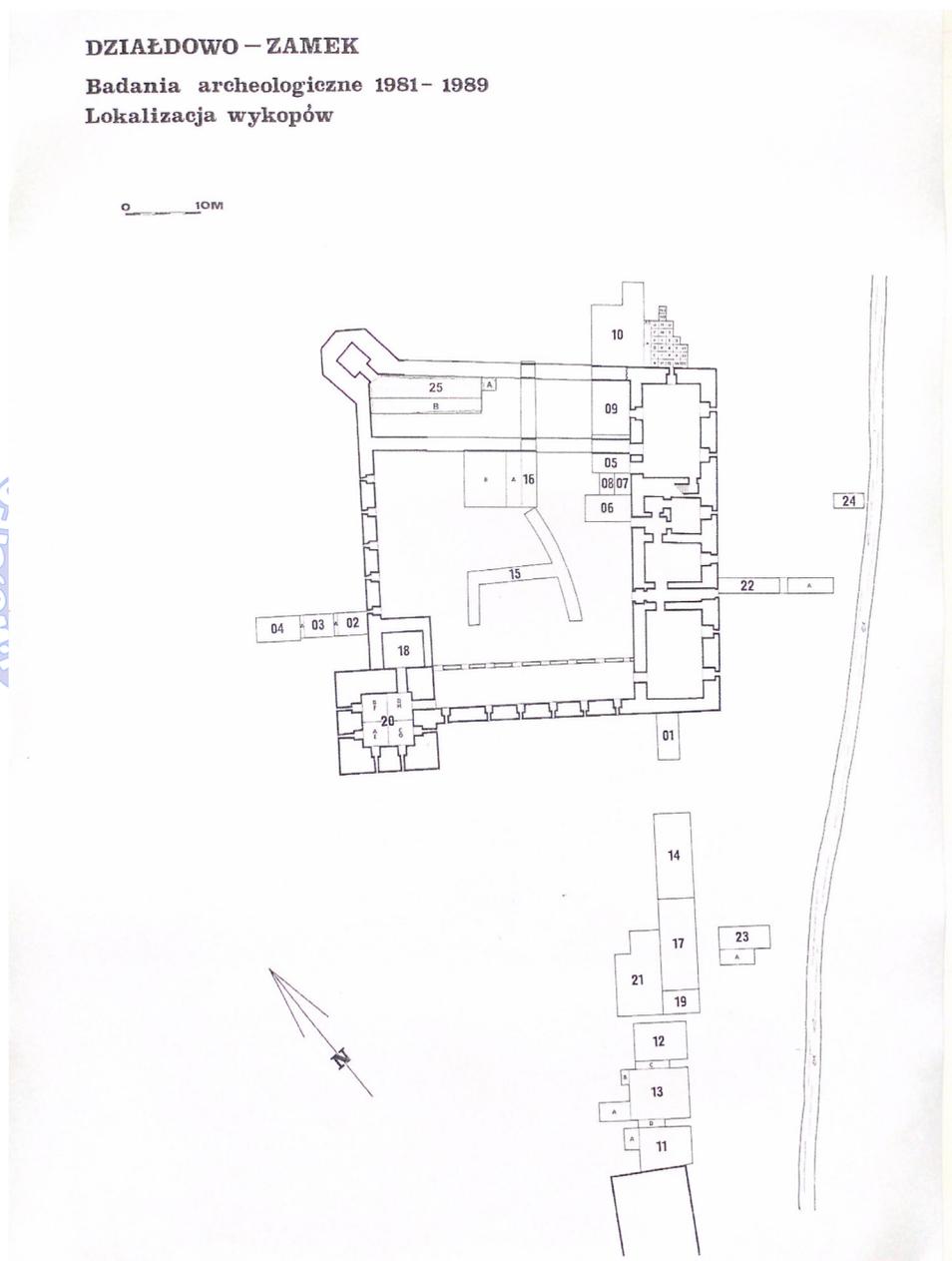
Brodnica – investigations of the castle conducted in different periods according to Kola 1970 and Grążawski 1992–1997 (after Wasik 2016)



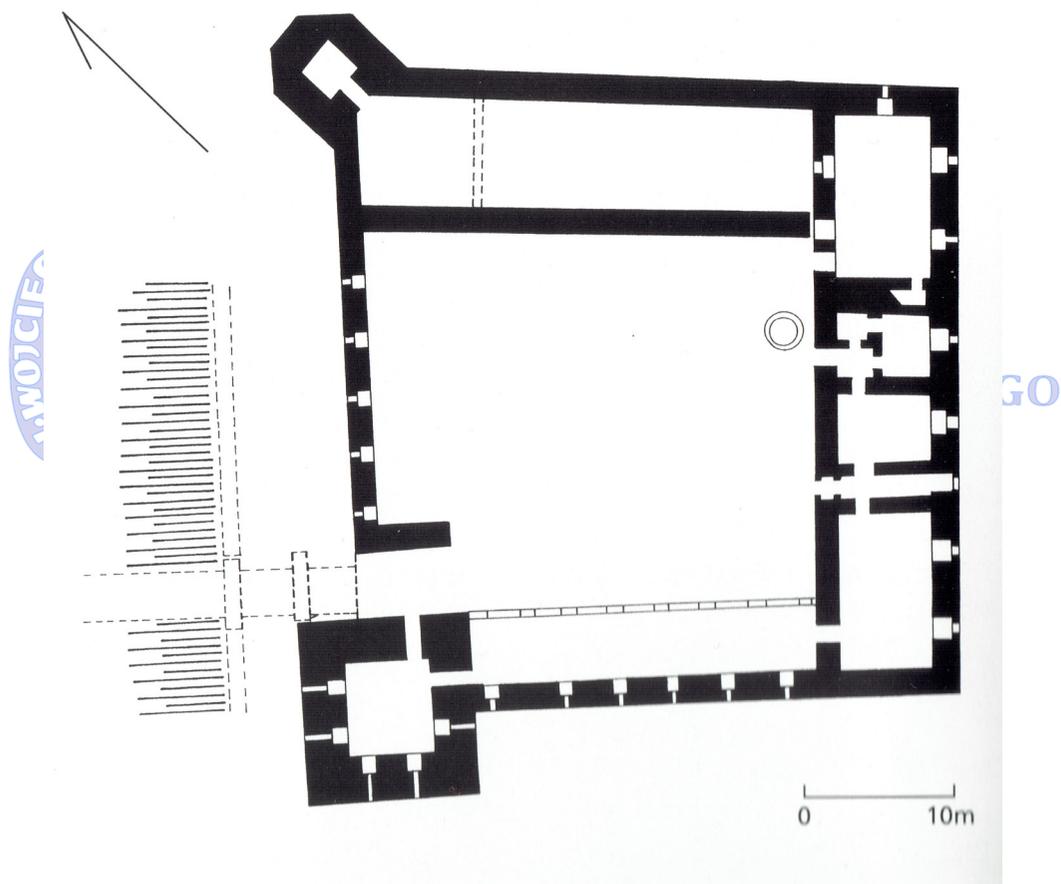
Bratian – exploration of the castle (after Grążawski 2010)



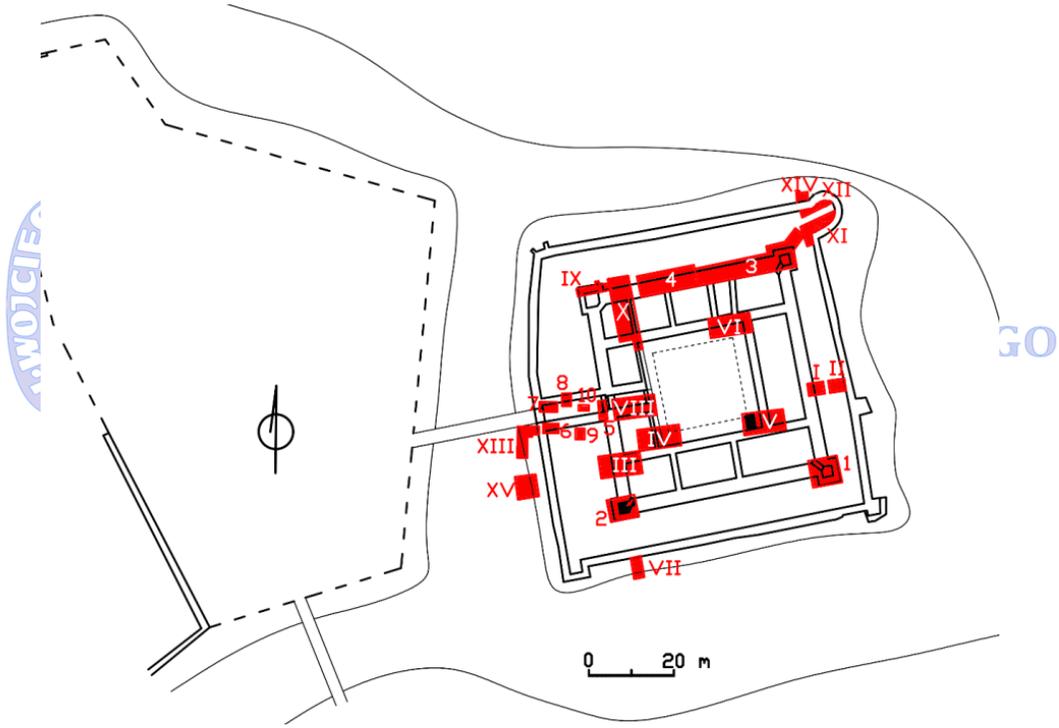
Kurzętnik – the castle’s plan (after WUOZ Olsztyn Archive)



Działdowo – the excavation plan of 1981-1989 (after Milewska 1990)



5. Działdowo – a projection of the castle's ground floor (after Salm 2004)



Lubawa – stages of the castle’s construction (after Kajzer 2001)



Lubawa – exploration of the castle (after Mackiewicz 2017)