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FIREARMS AND ARTILLERY IN JAN DŁUGOSZ'S *ANNALES SEU CRONICAE INCLITI REGNI POLONIAE*

Jan Długosz (Johannes Dlugossius), whose 600th birthday anniversary will be celebrated in 2015, is counted among the greatest chroniclers of fifteenth-century Europe. As the present volume of „Fasciculi Archaeologiae Historicate” is devoted to the issue of firearms and artillery, I would like to come back to the remarks on this question made by undoubtedly the most outstanding Polish annalist in his largest work entitled „Annales seu Cronicae incliti Regni Poloniae”¹.

It is a well known fact that in the case of firearms and heavy guns, projectiles are launched due to a propelling force generated by the combustion of gunpowder (originally only black powder was used for this purpose). This propellant was first used in China as early as the 7th century. Its explosive properties were observed in the 9th century and applied to propelling rockets through the air. The first mention of the composition of gunpowder dates back to 1044. Gunpowder was soon adopted for use by the Arabs and Mongols and the first trustworthy mention of the use of black powder in Europe can be found in the work *De secretis operibus artis et naturae et de nullitate magiae*, written by a Franciscan friar Roger Bacon in 1267.

However, the date when gunpowder was first used to propel a projectile from a gun barrel, marking the beginning of the firearms and artillery era in Europe, remains unknown. It was in use in the second quarter of the 14th century at the latest, because the production of bronze bombards and accompanying metal arrows and balls was mentioned in the books of accounts of the town of Florence in 1326. The oldest representation of a cannon is to be seen in one of the miniatures found in a handwritten copy with the title *De notabilitatibus, sapientiis et prudentiis regum* (often referred to as *De officiis regum*), also dating back to 1326 and held in Oxford. This work was composed by Walter de Milimete for his ward and the future king of England, Edward III, who was one of the greatest enthusiasts of this new type of weapon. The miniature shows a knight lightening a soup tureen-shaped cannon with a red, burning rod

and a metal arrow being thrown from its barrel. Another handwritten copy by Walter de Milimete, entitled *De secretis secretorum*, containing a figure representing a similarly shaped cannon surrounded by four gunners, is held at the British Museum in London.

As far as battlefield activities are concerned, the year 1331, when cannons were used during the siege of Cividale del Friuli in northern Italy, deserves special attention. The use of cannons was also mentioned during sieges in France and England throughout 1338, as well as in Spain in 1342. Cannons were recorded in the municipal accounts of Aachen, Germany, in 1346. In the same year, pieces of artillery were first used in open battle at Crécy. Those were the beginnings of artillery in Europe.

As for firearms, the main example of which was a handgun operated by one person, the first representation of this type of weapon can be seen in the fresco over a portico dating from 1343, found in the monastery in Leceto, near Siena, Italy. The mural painting depicts a group of warriors besieging the city and firing such guns, resting on the besieging rampart. However, the earliest mention of firearms can be found in the chronicle of the town of Perugia. In 1364, an order was placed for 50 hand-long (22-24cm) bombards, which were carried in the hand and were supposed to be capable of piercing every type of armour. The oldest surviving 14th-century handgun is held at the museum in Stockholm. Its bronze soup tureen-shaped barrel, 36mm in diameter, is approximately 30cm long and weighs nearly 9kg.

Firearms and large, heavy guns soon reached the rest of Europe. They were in use in the Balkans from 1351 onwards and were also known in Sweden as early as 1370. The first gunner in Prague, Bohemia, was mentioned in 1373. The first reliable mention of fire artillery in Teutonic Prussia dates back to 1374, when three cannons were held at the castle in Lipienko, Chełmno Land, though heavy guns might have been used by Teutonic Knights during the siege of Kaunas in 1362. In the years 1378-1381, firearms and artillery were first introduced in Hungary and the year 1382 marks the beginning of the firearms and artillery era in Lithuania. In the same year, this type of projectile weapon was used to defend Moscow against Tartar warriors.

¹ J. Długosz, *Annales seu Cronicae incliti Regni Poloniae*, books 3-12, Warszawa 1970-Kraków 2005.

The above remarks exhaust the topic of the beginnings of firearms and artillery in Europe and elsewhere².

A mention made by Jan of Czarnków in his chronicle has been considered as the beginning of the firearms and artillery era in the Kingdom of Poland, within its contemporary borders. The record refers to the launching of a stone projectile from a zinc bronze piece of artillery („lapidem aereo de pixide”)³ in Pyzdry, in January 1383. The projectile pierced the town gate and fatally wounded Mikołaj of Biechów, the parish priest, standing behind the gate. Therefore, the mention is not only evidence of the first use of artillery in Poland, but also of the first heavy gun casualty in the country.

Jan of Czarnków does not treat the use of artillery at Pyzdry as something unique or sensational. He had been familiar with the weapon's properties before and the main reason for his recording the incident was probably the priestly garments of the victim. Similarly, in the account of the siege laid by the Lithuanian army to the castle in Trakai at the end of 1383, their use of „machinarium et pixidum”⁴ seems to be mentioned in passing.

Another significant date in the history of firearms and artillery in Poland is the year 1390, when the first documented mention of the production of this kind of weapon in Poland was made. The record comes from Kraków, where the earliest surviving source documentation dates back to this year. Besides, the first documented handgun, referred to as the *hantbuchse*, is said to have been used by a town guard in Kraków in 1410⁵.

It should also be remembered that among the existing hypotheses about the first written record of the use firearms in the contemporary Kingdom of Poland⁶, there is one connected with Jan Długosz (1415-1480) and his work entitled „Annales seu Cronicae incliti Regni Poloniae”. The chronicler writes that in 1366, during Casimir the Great's expedition to Łuck, Włodzimierz and Olesko, „bombardis ceterisque apparatusibus”⁷ were used. In 1925, Aleksander Kiersnowski came to the conclusion that the record constituted a clear trace of the use of cannons in Poland⁸ and his opinion was later shared by Władysław Dziewianowski in 1935⁹.

It is difficult to say on what premises these two otherwise competent scholars based their assumptions if they overlooked the fact that the word bombard was used by Jan Długosz in much earlier parts of his work, which might have suggested the use of artillery. This linguistic analysis would mean greater care in drawing such definite conclusions. In the „Annales”, the term bombard is mentioned in the year 1049 [recte: 1050 or 1051]. Describing the history of Hungary after the death of King Peter the Venetian, the chronicler writes about the Emperor Henry III's expedition to Pressburg (Bratislava), which was besieged for a couple of months „proieccione bombardarum”¹⁰.

A similar situation referred to in Jan Długosz's „Annales” occurred over two hundred years later. In 1256, Pomernian warriors, besieging Nakło-on-Notec by means of „bombardis, machinis et fundis ligneis, que prokij vocantur”¹¹, attempted to force the town's troops to surrender. However, describing the incident, contemporary chroniclers write that protected by their shields, the Pomeranian forces, started to attack the town using slingshots and small machines throwing, probably stone, projectiles. A mention found in „Annales Polonie Maioris” reads that the attackers “cum fundibus lapidibus intus positus et eciam cum machine ceperunt castellum expungere”¹². „Chronica Poloniae Maioris” also says that „Fundibularii vero lapides et eciam de parvis machine ictus iacentibus iacentes”¹³. Therefore, the above accounts provide no basis for drawing any conclusions regarding the use of firearms or artillery at Nakło in 1256 nor the reconstruction of the list of events where cannons were in use on the battlefield, which is still headed by the siege of 1331 of Cividale del Friuli, Italy.

According to Jan Długosz, „aliquot tormentis et bombardis”¹⁴ were also used during the siege of Gdańsk in 1272. However, no mention of such incidents can be found in contemporary written records¹⁵. Knowing the history of firearms and artillery, such a situation was impossible at that time! Similarly, the use of Teutonic artillery first at Świecie in 1309 and subsequently at Dobrzyń-on-Wisła in 1329 is out of the question.

In Długosz's opinion, another bombard or even four large bombards („quatour validis bombardis”)¹⁶ were used

² See: J. Szymczak, *Początki broni palnej w Polsce (1383-1533)*, Łódź 2004, pp. 11-12.

³ *Joannis de Czarnkow Chronicon Polonorum*, ed. J. Szlachetowski, [in:] *Monumenta Poloniae Historia*, vol. II, Lwów 1872, p. 726.

⁴ *Ibidem*, p. 751.

⁵ A. Grabowski, *Dawne zabytki miasta Krakowa*, Kraków 1850, pp. 81-82.

⁶ It comprised all the lands of the contemporary Republic of Poland, excluding Silesia, Masovia and Prussia until 1466, but it extended beyond its present-day borders (Rus with Lviv = the Ukraine).

⁷ J. Długosz, *Annales...*, book 9, p. 332.

⁸ A. Kiersnowski, *Historia rozwoju artylerii*, Toruń 1925, p. 36.

⁹ W. Dziewianowski, *Zarys dziejów uzbrojenia w Polsce*, Warszawa 1935, p. 113.

¹⁰ J. Długosz, *Annales...*, books 3-4, p. 61.

¹¹ *Ibidem*, books 7-8, p. 104.

¹² *Rocznik kapituły poznańskiej*, [in:] *Roczniki wielkopolskie*, eds. B. Kürbis, G. Labuda, J. Luciński, R. Walczak, [in:] *Monumenta Poloniae Historia*, series nova, Vol. VI, Warszawa 1962, p. 37.

¹³ *Kronika wielkopolska*, ed. B. Kürbis, [in:] *Monumenta Poloniae Historia*, series nova, Vol. VIII, Warszawa 1970, p. 103.

¹⁴ J. Długosz, *Annales...*, books 7-8, p. 177.

¹⁵ *Rocznik kapituły poznańskiej*, p. 50: “nisi clipeis et cratibus et aliquibus parvis et parvulis instrumentis ad munimen aptis”; *Kronika wielkopolska*, p. 127: “nisi clipeis et cratibus et aliquibus parvis instrumentis ad munimen aptis”.

¹⁶ J. Długosz, *Annales...*, book 9, p. 60; see: T. [M.] Nowak, *Artyleria polska do końca XIV w. Problematyka i stan badań*,

by the Teutonic army during the siege of the castle in Świecie-on-Wisła during the conquest of Gdańsk Pomerania by the Order of Brothers of the German House of Saint Mary in Prussia in 1309. According to his „Annales”, in 1310, the Teutonic troops “bili [z tych bombard] z całej siły we dnie i w nocy w niskie, wówczas drewniane budowle zamku”¹⁷ (fired their bombards towards the low, wooden buildings of the castle during the day and at night). In 1329, „machinis [...] lapidum”¹⁸ were used to constantly hit the castle fortifications in Dobrzyń. Thus, in this case, no gunpowder was in use and the projectiles were stones launched from neuroballistic machines.

Further, Jan Długosz writes that in 1330, the Teutonic troops fired their bombards to attack the knights of Władysław I the Elbow-high while the latter were fording the Drwęca River¹⁹. The account of 1344 of Polish and Tatar troops shooting at each other across the Vistula River „per arcus et balistas bombardarumque”²⁰, that is, using bows, crossbows and some bombards, does not withstand criticism in respect of the use of artillery either. In addition, „bombardis ceterisque instrumentis conquirendarum urbium relictis”²¹ are said to have been used during the siege of Poznań in 1331 and the fortifications of Gniewków are believed to have been attacked by means of „proieccionibus bombardarum”²².

The year 1366, noticed by Aleksander Kiersnowski and Władysław Dziewanowski, is in fact the seventh instance of Jan Długosz using the word bombard in his accounts.

In addition, before the year 1376, non-powder artillery was used at the castle in Złotoria, situated on the bank of the Drwęca River. According to Jan Długosz, Duke Casimir of Szczecin hit the walls, towers and defensive walls of this beautiful baked-brick castle, built by Casimir III the Great, by means of „machinis ceterisque expugnacionum generibus” during the day and at night to defend it and to celebrate the glory of his mother country. The troops defending the castle also had at their disposal some „machine et tormenta”²³. Repeating the words of Jan of Czarnków, the annalist argues that the besiegers attacking the fortress „cum machinis et instrumentis aliis” were repelled by the warriors defending the castle, for whom Hanko, the miller, „machinas et alia instrumenta pro castro necessaria praepararet”²⁴.

„Studia i Materiały do Historii Wojskowości”, Vol. 9/2, 1963, pp. 39-40, 43.

¹⁷ J. Długosz, *Roczniki czyli kroniki sławnego Królestwa Polskiego*, books 9-12, translated by J. Mrukówna, book 9, Warszawa 1975, p. 74; idem, *Annales...*, book 9, p. 60.

¹⁸ J. Długosz, *Annales...*, book 9, p. 140.

¹⁹ *Ibidem*, p. 147.

²⁰ *Ibidem*, p. 234.

²¹ *Ibidem*, p. 172.

²² *Ibidem*, p. 174.

²³ *Ibidem*, book 10, pp. 44-45.

²⁴ *Joannis de Czarnkow Chronicon Polonorum*, pp. 658-659.

The Latin words *bombarda* and *pixis*, the German word *büchse* and the Polish term *puszka* were originally used to denote a handgun. It should, however, be remembered that these words were also used in a different sense. In 1505, among the personal belongings of a Benedykt from Kraków, a musician, „pixidem alias puschkam cum rebus”²⁵ were found. It may therefore be assumed that the term also denoted a kind of chest, box or coffer for storing personal property. A document of 1456 issued by Casimir IV Jagiellon says that measures were taken „pro pixidibus duobus, vulgariter puszky”²⁶. Although the last mention has been interpreted as referring to firearms, in the light of the above, this conclusion can also be questioned. However, the *puszka* fired by a Materna Budziszyn in 1421 must have been a handgun as the projectiles made two large holes in the sheepskin coat worn by Jadwiga, the wife of Janusz of Kręsk²⁷.

Some linguistic and semantic doubts arise over a mention of 1457 found in the books of the town of Lwów. According to this record, Gregorius, the village reeve, had at his disposal „pixidem seu bombardam alias hufnica”²⁸. Therefore the Latin word *pixis*, the Polish word *puszka* and the international term *bombarda* all have the same meaning.

In the pre-powder period of the history of artillery, the term *bombarda* was frequently used to denote neuroballistic machines. Długosz does it in his „Annales” twice: in a record of 1049 and a mention of 1309. Later, however, bombards were considered an early form of a 14th-15th century large cannon²⁹. However, the word *bombarda* was not only used to refer to a heavy gun. Sometimes, the term denoted a terrace gun or even a handgun, for example a harquebus, as written records mention such weapons as *bombarda alias tharasnycza* and particularly *bombarda alias hakownicza*, *bombarda parva*, *bombarda manualia*, *bombarda seu arcabusa*, *bombarda alias rusznicza*³⁰. Besides, Długosz himself, provides an argument regarding the use of the word *bombarda*. Describing the attack on Radzyń

²⁵ *Cracovia artificum: 1501-1550*, eds. J. Ptaśnik and M. Friedberg, [in:] *Źródła do historii sztuki i cywilizacji w Polsce*, Vol. 5/1, Kraków 1936, No. 96.

²⁶ *Kodex dyplomatyczny Polski*, Vol. IV, ed. M. Bobowski, Warszawa 1887, No. 40.

²⁷ *Słownik historyczno-geograficzny województwa poznańskiego w średniowieczu*, part 2/3, prepared by K. Górską-Gołaską, T. Jurek, J. Luciński, G. Rutkowska, editor-in-chief A. Gąsiorowski, Wrocław 1991, p. 448.

²⁸ D. Zubrzycki, *Kronika miasta Lwowa*, Lwów 1844, p. 110; see: K. Badecki, *Średniowieczne ludwisarstwo lwowskie*, Lwów-Warszawa-Kraków 1921, p. 34; idem, *Zaginione księgi średniowiecznego Lwowa*, „Kwartalnik Historyczny”, Vol. XLI, 1927, p. 564.

²⁹ *Glossarium mediae et infimae latinitatis conditum a Carolo du Fresne domino du Cange actum*, Vol. I, Paris 1937, pp. 694-695; see: L. Křížek, Z. J. K. Čech, *Encyklopedie zbraní a zbroje*, ed. 2, Praha 1999, p. 33; M. Gradowski, Z. Żygulski jun., *Słownik uzbrojenia historycznego*, Warszawa 2000, p. 108.

³⁰ See: J. Szymczak, *Początki broni palnej...*, pp. 33-34.

in 1410, the annalist writes that Dobiesław of Oleśnica was hit with a projectile fired from a small bombard, referred to as 'piszczel' ('bombarde minoris seu fistule ictum'), which pierced his shield³¹.

Let us concentrate on the account of the incident of 1383 as presented by Jan Długosz. The mention reads that „rycerze polscy pod wodzą wojewody poznańskiego Wincentego z Kępy i Bartosza Wezenborga w niedzielę w oktawie Trzech Króli [tj. 10 stycznia] zaczęli najpierw atakować miasto i zamek Pyzdry i przez cztery dni usiłowali je zdobyć. W końcu czwartego dnia mieszczanie poddali się pod warunkiem, że nie doznają żadnej krzywdy i otworzyli bramy, mimo że załoga zamku była temu niechętna. Zaczęto zatem oblegać zamek. W końcu trzeciego dnia z powodu braku żywności, a zwłaszcza wody, rycerze Domarata [z Pierzchna z rodu Grzymalitów] poddają go”³² (on the octave of the Twelfth Night [i.e. the Sunday of 10th January], the Polish knights commanded by Wincenty Kępa, Voivode of Poznań, and Bartosz Wezenborg began to storm the town and castle of Pyzdry and kept attacking the place for four days. In the end, on the fourth day, the townspeople surrendered on condition that they would not be hurt and opened the gates despite the fact that the defending troops were against this decision. Thus, siege was laid to the castle. Finally, on the third day, the knights of Domarat [of Pierzchno, belonging to the Grzymalici family] were forced to surrender because of lack of provisions, particularly water) and the besiegers set off for Kalisz on January 20th. No mention is made of the use of artillery or the death of Mikołaj, the parish priest! The incident was never included in later chronicles, because their authors simply based their accounts on Długosz's work. Marcin Kromer writes that in mid-January, Bartosz of Wezenborg and Wincenty of Kępa attacked Pyzdry and that after a successful siege of the town and surrender of the castle, the defenders were allowed to leave the place taking their personal belongings, horses and cannons with them³³. Although the use of artillery is in fact mentioned in the account, according to the chronicler, it was the defending troops and not the attackers that had heavy guns at their disposal! Nothing is said about Mikołaj, whose story would be an interesting titbit of sensational information for the reader. In the Polish chronicle composed by Marcin Bielski, a mention can be found of the supporters of Bartosz Wezenborg and Wincenty of Kępa who 'ruszywszy się przeciw Domaratowi najpierw mu Pyzdry miasteczko i zamek oblegli, które oboje do szóstego dnia wzięli przez

poddanie' [having set off on an expedition against Domarat, first attacked the town and castle of Pyzdry, which were both surrendered to them after a siege on the sixth day,] to subsequently leave for Kalisz³⁴. Thus, the account corresponds to the one found in Jan Długosz's „Annales”!

As for „Annales”, Book 10 (1370-1405) provides some information about bombards, but these mentions come from Jan Długosz himself because the work of Jan of Czarnków as a source of knowledge ends in 1384. Our great chronicler writes that Klemens of Moskorzewo,³⁵ Vice-Chancellor of the Kingdom of Poland, appointed the starost of Wilno, was sent to this town 'cum bombardis, balistis et apparamentis bellicis'³⁶ in 1389. Despite the numerous doubts regarding Jan Długosz's knowledge of firearms and artillery, this information can be considered accurate, as this mention is indirectly confirmed by data found in the royal account book of Jadwiga and Władysław II Jagiełło regarding delivery of weapons from Kraków to Lithuania. Although the records contain no information about shipping firearms or cannons in this direction, some crossbows (balistarum) are known to have been dispatched to Wilno at that time³⁷.

Three further pieces of information about the use of firearms and heavy guns in 1390 included by Jan Długosz in his chronicle are also connected with Wilno. During the siege of the castle by Duke Vytautas the Great „omnis tormentorum” were used and the projectiles thrown „per machinas” and „omnia bombardarum tormenta” severely damaged the fortifications³⁸. Vytautas had at his disposal Prussian cannons, positioned in a nearby meadow (“in prato, in quo bombarde Pruthenice consistierant”)³⁹. In November 1390 [recte: in the spring of 1391], in order to reinforce the defending troops, Władysław II Jagiełło arrived in Lithuania with numerous wagons carrying various weapons, including “bombardarum, balistarum, sagittarum”⁴⁰.

Shipping cannons, gunpowder and missiles was a serious logistic undertaking. Describing the massed levy units gathering on 24th June, 1410 in the vicinity of Wolbórz, where wagons carrying provisions, tents and other sorts of equipment arrived, Jan Długosz mentions some cannon carriages pulled by four horses („quadrigae bombardarum”)⁴¹.

³⁴ *Kronika polska Marcina Bielskiego*, ed. K. J. Turowski, Sanok 1856, p. 455.

³⁵ See: *Urzednicy centralni i nadworni Polski XIV-XVIII wieku. Spisy*, prepared by K. Chłapowski, S. Ciara, Ł. Kądziera, T. Nowakowski, E. Opaliński, G. Rutkowska, T. Zielińska, editor-in-chief A. Gąsiorowski, Kórnik 1992, p. 106, No. 616.

³⁶ J. Długosz, *Annales...*, book 10, p. 175.

³⁷ *Rachunki dworu króla Władysława Jagiełły i królowej Jadwigi z lat 1388 do 1420*, ed. F. Piekosiński, Kraków 1896, pp. 158, 160, 200.

³⁸ J. Długosz, *Annales...*, book 10, p. 185.

³⁹ *Ibidem*, p. 187.

⁴⁰ *Ibidem*, p. 189.

⁴¹ *Ibidem*, books 10-11, p. 63; see: S. M. Kuczyński, *Wielka wojna z Zakonem krzyżackim w latach 1409-1411*, Warszawa 1966, p. 332.

³¹ J. Długosz, *Annales...*, books 10-11, p. 148.

³² *Idem, Roczniki...*, book 10, Warszawa 1981, pp. 146-147; *idem, Annales...*, book 10, p. 110.

³³ *Kronika polska Marcina Kromera biskupa warmińskiego ksiąg XXX, dotąd w trzech językach, a mianowicie w łacińskim, polskim i niemieckim wydana, na język polski z łacińskiego przełożona przez Marcina z Błażowa Błażowskiego i wydana w Krakowie w Drukarni M. Loba r. 1611*, Sanok 1857, pp. 686-687.

Most probably, these were ordinary wagons used for shipping cannon barrels, which were subsequently mounted on special wooden bases or mounts on the battlefield. Sometimes, they were even placed directly on the ground, before the carriage and the bogie assembly were constructed⁴².

The list of 15th-century incidents where firearms or artillery were used is headed by a piece of information provided by Jan Długosz about the siege of Smoleńsk by Duke Vytautas the Great. Lithuanian and Russian troops together with Polish reinforcements laid siege to the town in 1403. The siege began with artillery fire, which damaged numerous buildings in the town („primum bombardarum proiectione illius structuras quatit et comminuit”) and weakened its fortifications, which were seized during the first raid⁴³. The following year, Władysław II Jagiełło set off for Kamieniec Podolski, manned by the supporters of Duke Świdrygałło, in order to restore the place to Poland. After entering the town, artillery fire was opened at the castle („bombardis illud quatit”), which resulted in the surrender of its defenders⁴⁴.

The great war with the Teutonic Order started with an attack launched by the Teutonic forces on Dobrzyń Land in August 1409. Its capital town of Dobrzyń was seized by means of, among others, „continuous artillery fire” („continuis quassacionibus bombardarum”)⁴⁵. Then the Teutonic forces attacked Bobrowniki. The Teutonic chronicler's account of the damage sustained by its fortifications is confirmed by Jan Długosz, who accuses the defending troops of a quick surrender⁴⁶. Złotoria, seized on 2nd September, was the last point of resistance in Dobrzyń Land. Most of the castle's defenders were killed by projectiles thrown from the Teutonic heavy guns used during the siege („quoniam maior pars militum castrum defendencium ex proiectione bombardarum erat interfecta”)⁴⁷. In reaction to the Teutonic army's success, Władysław II Jagiełło and his troops laid siege to the town and castle of Bydgoszcz on 28th September. Jagiełło used heavy guns and opened artillery fire. One of the casualties was the Teutonic commander of the castle. Jan Długosz writes, „ex quarum [bombardis] continua proiectione commendator et capitaneus castris fuit interfectus”⁴⁸. The king's artillery was also successfully used to damage the fortifications and on 6th October, after

seizing the fortress, the king ordered that the broken wall be repaired („reparatis eius ruinis”)⁴⁹.

Firearms and mainly artillery, are frequently mentioned in Jan Długosz's „Annales” in the account of the expedition of 1410. Cannons were carried by the army from Wolbórz to the ford in the Vistula River near Czerwińsk, where the army crossed the river using a pontoon bridge in fixed order on June 30th. These were again the above-mentioned four-horse carriages („cum quadrigis et mole bombardarum”), which were referred to as *grandis bombarde* by Dobiesław Skoraczewski in his conversation with Ulrich von Jungingen, Grand Master of the Teutonic Knights⁵⁰. Mentions of fording a river with heavy guns, machines and other types of military equipment can also be found in the work „Cronica conflictus Wladislai regis Poloniae cum Cruciferis anno Christi 1410”⁵¹. Regrettably, neither Jan Długosz nor any other chronicler gives the exact number of cannons carried by this army. Historians estimate the number of guns at 30 to 60⁵². Pieces of artillery, referred to as „munitis bombardis”, were also used at the Teutonic castle in Kurzętnik, guarding the ford in the Drwęca River. The cannons were brought to the castle from nearby Teutonic fortresses and from Malbork itself⁵³. When Władysław II Jagiełło's troops gave up the idea of fording the river and changed direction, the only traces of their deserted camp on the shore of Lake Rubkowo were empty vessels, a few horses, which could no longer be used by the army, and a handful of cannon balls. This information was passed to Grand master Ulrich von Jungingen and written down by our chronicler („lapidum [...] bombardicorum”)⁵⁴. Dąbrówno, a town situated on the marching route of Władysław II Jagiełło's army, was seized despite the efforts of its defending troops, who launched projectiles and threw stones from its fortifications („bombardis et saxis”) in order to repel the attackers⁵⁵.

No written mention can be found of the use of Polish artillery at Grunwald on July 15th, 1410. It must have provided additional fire support from the shore of Lake Łubień. It may only be noted that it was the Teutonic troops who chose the battlefield and consequently deprived their enemy of the chance to use their heavy guns because of their short shooting range. It is, however, known that Teutonic troops fired their cannons twice, launching stone projectiles. The relevant account found in Jan Długosz's chronicle is consistent with the relation offered by the above-mentioned „Cronica conflictus”⁵⁶.

⁴² See: J. Szymczak, *Początki broni palnej...*, pp. 69-71.

⁴³ J. Długosz, *Annales...*, book 10, p. 251. For further information on the dating of these events see: *Rozbiór krytyczny Annales Poloniae Jana Długosza z lat 1385-1444*, Vol. 1, S. Gawęda, K. Pieradzka, J. Radziszewska, K. Stochowska, editor-in-chief J. Dąbrowski, Wrocław-Warszawa-Kraków 1961, p. 67.

⁴⁴ J. Długosz, *Annales...*, book 10, p. 261.

⁴⁵ *Ibidem*, books 10-11, p. 30.

⁴⁶ *Ibidem*, p. 31; see: S. M. Kuczyński, *Wielka wojna...*, p. 144.

⁴⁷ J. Długosz, *Annales...*, books 10-11, p. 31.

⁴⁸ *Ibidem*, p. 32; see: S. M. Kuczyński, *Wielka wojna...*, pp. 146-147.

⁴⁹ J. Długosz, *Annales...*, books 10-11, p. 33.

⁵⁰ *Ibidem*, pp. 64, 66.

⁵¹ *Cronica conflictus Wladislai regis Poloniae cum Cruciferis anno Christi 1410*, ed. Z. Celichowski, Poznań 1911, pp. 15-16.

⁵² See: J. Szymczak, *Początki broni palnej...*, pp. 234-235.

⁵³ J. Długosz, *Annales...*, books 10-11, p. 78.

⁵⁴ *Ibidem*, p. 81; see: *Cronica conflictus...*, p. 18.

⁵⁵ J. Długosz, *Annales...*, books 10-11, p. 83.

⁵⁶ *Ibidem*, p. 105; *Cronica conflictus...*, p. 18.

Further mentions found in Jan Długosz's chronicle of the role played by artillery refer to the siege of Malbork, which took place on July 25th. The town was taken the following day, and on the night of 26th of July, large guns were positioned in the parish church⁵⁷. Artillery fire was opened at the southern part of the castle, the vicinity of Brama Szewska (the Shoemakers' Gate), Brama Wróblowa (the Sparrow Gate), the draw bridge and the road leading from the town to the Upper Castle and St Anna's Chapel in the flanking tower called Baszta Dytrykowa. The last pieces of information do not come from Długosz's chronicle, but from Teutonic account books containing records of the cost of repairs connected with the reconstruction of these fortifications made after the siege had been lifted⁵⁸. According to our annalist, further large guns were placed in such a way that fire could be opened at the castle from every direction: from the position of the Lithuanian troops, from the forecastle area and from the right riverbank, near the bridge burnt by the defending troops⁵⁹. This information, confirmed by Johan von Posilge, a Teutonic chronicler, has been recognized by historians⁶⁰. According to our chronicler, the flanking tower called Baszta Wróblowa was also damaged by artillery fire and part of its wall, weakened by artillery missiles, was demolished by Teutonic knights themselves ("murum regis bombardis debilitatum ruinam"). The debris fell on the Polish knights, causing heavy losses. When the knights from three Polish military units, called banners, were keeping watch at the cannons („excubias ad bombardas observantibus”), the defending troops carried out a raid on them. They were fought off and had to seek shelter in a round castle tower. However, they knocked down part of its wall and the falling masonry killed some of the Polish knights. According to Jan Długosz, the knights belonged to the units commanded by Dobiesław of Oleśnica, Kmita of Wiśnicz, and the Gryfity's family unit (banner)⁶¹. In no flat time, the Teutonic troops carried out another raid on the knights of Wieluń Land, who were keeping watch at the heavy guns. The Polish knights did not remain vigilant enough and, as a result, a few of them were wounded and some captured. The attackers also managed

to damage a couple of guns⁶². This information proves significant from the perspective of the organization of sieges and protection of artillery weapons against the counterattack of the troops besieged in a fortified structure.

The participation of artillery in the siege of Malbork has been considered mostly ineffective. This is a result of the fact that the allies' commanders had a different conception of this military campaign and, most probably, did not take into consideration the use of artillery, fire artillery included, for besieging Teutonic castles. Fortunately, Jan Długosz devoted a large part of his account to the description of the siege of Malbork, which constitutes a valuable source of information about the beginnings of firearms and artillery in Poland.

In addition, Jan Długosz describes a situation where firearms were successfully used during the withdrawal of the king's forces from Malbork. On 21st September, during the attack on the castle at Radzyń, a military unit commanded by Dobiesław of Oleśnica stormed the gate of the lower castle and while Dobiesław was protecting the knight breaking the gate, he was hit with a missile launched from a small *bombarda*, called a *fistula*. This Latin term denoted a small pipe or a fife and for this reason, the weapon was called a *piszczał* or *piszczel* in Polish (both the words are connected with playing the fife)⁶³. This account was already mentioned above, discussing the scope of the term *bombarda*.

Taking advantage of the withdrawal of the Polish forces, Grand Master Heinrich von Plauen, paid for new enlisted troops and gathered „currum bombardarum ceterorum bellicorum apparatusum multitudine”⁶⁴. He launched a raid from Tuchola and attacked Sztum. During the siege, either accidentally or as an act of treachery, the gate tower of the upper castle was burnt down „cum pulveribus, telis, propugnaculis et victualibus”⁶⁵. Subsequently, artillery was used during the siege laid by the Grand Master to the castle in Radzyń. The town, however, was manned with Teutonic knights and their supporters. On hearing that reinforcements had arrived from Brodnica, the defenders attacked the town gate, next to which a „bombarda magna” was positioned. A priest, who wanted to help his fellow countryman gathered in front of the gate, lit the fuse. Unfortunately, the cannon recoiled, fell down and crushed 24 townspeople and three persons belonging to the king's army. Devastated by this incident, the townspeople and Teutonic knights defending the town, surrendered the place⁶⁶.

This is the last piece of information provided by Jan Długosz on the use of firearms and artillery in the Great

⁵⁷ J. Długosz, *Annales...*, books 10-11, p. 132: „rex Wladislaus nocte eadem bombardis maioribus in ecclesiam opidi introductis continua percussione ex illis castrum quatit”.

⁵⁸ M. Haftka, *Zwischen Sage und Wahrheit. Aus der Geschichte der ersten Belagerung der Marienburg 1410*, [in:] *Marienburg. Das Schloss der Deutschen Ordens*, editor in chief M. Woźniak, Bydgoszcz-Malbork 1993, pp. 97-109; M. Kuc, *Oblężenie twierdzy malborskiej w 1410 roku – aspekty militarne*, „Zapiski Historyczne”, Vol. 65/1, 2000, pp. 38-39.

⁵⁹ J. Długosz, *Annales...*, books 10-11, p. 132: „Locate et alie bombarde fuere in exercitu Lithuanico, alie circa pomerium, alie in pede pontis ex altera parte Wisle exusti”.

⁶⁰ See: M. Haftka, *Zwischen Sage und Wahrheit...*, p. 102; M. Kuc, *Oblężenie twierdzy malborskiej...*, pp. 39-40; J. Szymczak, *Początki broni palnej...*, pp. 236-238.

⁶¹ J. Długosz, *Annales...*, books 10-11, pp. 133-134.

⁶² *Ibidem*, p. 138.

⁶³ *Ibidem*, p. 148; see: J. Szymczak, *Początki broni palnej...*, pp. 36-41.

⁶⁴ J. Długosz, *Annales...*, books 10-11, p. 160.

⁶⁵ *Ibidem*, p. 165.

⁶⁶ *Ibidem*, pp. 165-166.

War with the Teutonic Knights in the years 1409-1411. Scarce at first, the mentions gradually become more and more numerous and they contain more and more precise data regarding the growing role of artillery in siege battles. The incidents described are usually significant from the tactical point of view. Thus, the work of our annalist can be considered a valuable source of information, promoting artillery, but not firearms, which did not yet display their full potential at that time.

During the Hunger War of 1414, no spectacular occurrences of the use of artillery were observed and for this reason, Długosz makes no mention of such incidents in his „Annales”.

The Polish-Teutonic conflict entered a new phase after Sigismund of Luxemburg, King of Hungary, had issued a wrongful decree against Poland. As usual, the Teutonic troops fortified the Drwęca River and used their „bombardis et sagittis” to prevent Władysław II Jagiełło’s army from crossing the river⁶⁷. On 17th August, after they had forded the Drwęca River, the king’s army reached Golub, seized the town and opened artillery fire („bombardis maioribus”) at the castle, which surrendered after three days⁶⁸. After taking Golub, the army headed for Kowalewo. Despite using their *bombardas*, opening heavy artillery fire at the castle and launching a number of raids, they never seized the fortress⁶⁹. The peace treaty was signed on the shore of Lake Mielno on 27th September, 1422. The fact that only a few mentions of spectacular artillery attacks can be found in Jan Długosz’s „Annales” is a result of a lack of successful sieges laid during this war.

Before the year 1428, information can be found in Jan Długosz’s work about Duke Vytautas the Great’s expedition to Veliky Novgorod. Access to the town was guarded by, among others, the fortress in Opotscheck, near Pskov. Numerous projectiles were launched at its fortifications from the attackers’ „bombardis, machinis et ligneis tormentis”⁷⁰. According to the chronicler, not only artillery but also neuroballistic engines were used.

When, after the death of Duke Vytautas the Great, a conflict broke out between Poland and Lithuania over western Podolia, Lutsk became a central point of disagreement in 1431. Władysław II Jagiełło’s army reached the Styr River on 31st August. The bridge had been burnt down before and an army, 6 thousand strong, commanded by his rebel brother Świdrygiełło, was waiting on the opposite riverbank. In order to examine the fording place, the king sent forth 4 military units (banners), reinforced with two terrace guns („duabus bombardis tarasznicze vocatis”)⁷¹.

This was the first time Jan Długosz had specified the type of heavy gun carried by the army instead of using the general term *bombarda*. It should be noted that it was in 1431 that the annalist, who was sixteen years old at that time, went into service at the court of Bishop Zbigniew Oleśnicki of Kraków and, for this reason, he had information about the course of this campaign from one of the most influential policymakers in Poland. However, it must be remembered that terrace guns were a type of artillery used at fortresses and not on the battlefield. Nonetheless, they proved to be so effective that Grand Duke Świdrygiełło’s army was forced to withdraw from the riverbank and the Polish reconnaissance party could ford the river and unexpectedly attack the enemy. The king’s forces laid siege to the castle on 1st August, but artillery fire was opened only a few days later, when heavy guns could be carried across the river over the rebuilt bridge. The projectiles thrown from large demolition guns („bombarde [...] maiores”) started to break the defensive wall and make holes in it. A few towers were pulled down as well („quaciebant et rupebant murum et plures turres”)⁷². It was rumoured that Władysław II Jagiełło insisted that the large guns be no longer used as they caused too much destruction. The attack launched on the fortifications of Łuck on 13th August was fought off. The defending troops pushed the attackers off the ladders and walls „tum bombardis, tum fundis, fistulis, sagittis, lapidibus”, thus forcing the latter to withdraw⁷³. The truce was signed on 17th August and the defending troops could finally repair the damage and mend the holes in the fortifications. As soon as the truce was over, the Polish army opened artillery fire again, but the defenders successfully fought them off. On 1st September, the besiegers used a counter balance siege engine, constructed of wood and called a „prok” („prok ex lignis magistraliter et artificiose dispositus”), in order to throw carrion into the fortress, which would cause a plague⁷⁴. Besides fire artillery neuroballistic artillery was still in use as an equally effective type of siege weapon.

The siege of Łuck was broken on 3rd September when the news reached the Polish army that the Teutonic Knights, allied with Świdrygiełło, invaded Dobrzyń Land and Kujawy. Describing the siege of Brześć Kujawski, Jan Długosz writes that a Teutonic commander was killed by Polish artillery fire⁷⁵.

In June 1433, the Polish massed levy units from Greater Poland together with Bohemian Hussite troops ravaged the New March and headed for Chojnice in revenge for this Teutonic attack. The marching army was stopped by the projectiles fired from a large gun positioned at the castle

⁶⁷ *Ibidem*, book 11, p. 171.

⁶⁸ *Ibidem*, p. 173; see: *Rozbiór krytyczny Annalium Poloniae Jana Długosza z lat 1385-1444*, Vol. I, pp. 202-203.

⁶⁹ J. Długosz, *Annales...*, book 11, pp. 179-180.

⁷⁰ *Ibidem*, p. 244.

⁷¹ *Ibidem*, books 11-12, p. 28.

⁷² *Ibidem*, p. 31.

⁷³ *Ibidem*, p. 32.

⁷⁴ *Ibidem*, p. 37.

⁷⁵ *Ibidem*, p. 39: „uno ex comendatoribus ictu bombarde interfecto”.

in Tuchola („bombarde magne ex castro Tucholya”). The troops made camp in the forest, about 1 mile away from the town, but this place was also reached by the stone missiles thrown from castle guns („lapides bombarde ex Tucholya proiecte”)⁷⁶. One can only wonder if Jan Długosz’s mention is to be considered reliable in respect of the range of the guns (approximately 3,750m)⁷⁷. Three months later, the very same guns were capable of repelling the enemy approaching the town at a distance of only 0.5 mile⁷⁸, which would have been a record distance anyway!

The siege of Chojnice began on 7th July. Despite heavy artillery fire and a siege tunnel dug in order to reach the place, the defending troops did not surrender. The raid launched on 22nd July was a failure too. Among the victims was Jan Mężyk of Dąbrowa, Voivode of Lwów, who was badly wounded in the foot by a harquebus („ictu fistule in pedem graviter vulneratus”)⁷⁹. The unsuccessful siege was finally lifted after 8 weeks.

The next stage of the expedition was Tczew. No sooner had the town been seized than the Polish and Hussite troops headed off for Gdańsk, which they reached on September 1st. Artillery fire was opened from Biskupia Górka (Bishop’s Mount), which was out of reach of the town’s artillery. Besides, according to Długosz, it was easier to throw projectiles at the city from a hill („ex monte in illam erat proieccio”)⁸⁰. However, the lack of spectacular success resulted in lifting the siege after 4 days. The return route led via Tuchola, where the castle’s heavy guns („bombarda magna [...] ex castro”)⁸¹ did not let the army approach the town once again.

In 1438, the fact that Casimir IV Jagiellon came to the Bohemian throne resulted in a war with Albert II of Germany. The armies met in the vicinity of Tabor. According to Jan Długosz, zinc bronze pieces of artillery, „bombarids, pixibus”, were used every day. However, King Albrecht had at his disposal larger guns⁸². Thus, it seems that our annalist gradually began to pay more attention to artillery and fully appreciate this type of weapon.

This tendency is also visible in the description of a relatively unimportant incident which took place on the Hungarian-Turkish frontline and where gunpowder was used. In 1440, Turkish troops laid siege to Belgrade. They damaged a considerable part of the town’s fortifications with artillery projectiles and subsequently, covered the defensive moat with fascine and timber. This was the way they prepared direct access to the defensive wall. The defending

troops did not disturb them on purpose, but at night, covered the timber gathered by the Turkish troops with gunpowder („bombarum pulveribus”). The next day, during the Turkish attack, they lit the gunpowder, thus setting fire to the dry twigs and timber, which caused great confusion among the enemy troops. The attack failed due to the flames and suffocating smoke⁸³. Similarly, in 1442, gunpowder ignited, („per pixidarum pulveres”) accidentally or on purpose, during the siege of the castle in Brzozowiec resulted in a fire and consequently led to the surrender of its defenders⁸⁴.

Lack of heavy artillery influenced the course of the campaign organized by Władysław of Varna against the Turks in the autumn of 1444. Most probably, the army carried no heavy guns, because they were difficult to transport as the marching route led through numerous mountain ranges and over a number of rivers. Jan Długosz regrets this decision as heavy artillery would have hit and scare the enemy army⁸⁵. This was the first time that Długosz had openly praised this type of weapon. Thus, the canon of Kraków noticed the significance of fire artillery and recognized its advantages on the battlefield. He also valued heavy guns for their effectiveness on the following pages of his „Annales”. Describing the conflict between Vladislaus II Jagiellon and Frederick III, German Emperor, the chronicler says that in 1452, during the siege of Wiener Neustadt, three „bombarda maiori” broke the fortifications next to two towers⁸⁶. Finally, in the year 1453, the Turkish troops used various types of siege engines, bombards included, during the siege of Constantinople⁸⁷.

The significance of the use of artillery during the Thirteen Years’ War (1454-1466) has already been examined⁸⁸. Therefore, I will only present here the most important facts, emphasizing the information provided by Jan Długosz. The first mention refers to Sztum, where the defending troops surrendered because of famine at the end of July, 1454. They were allowed to leave the place and take their personal belongings with them, but the bombards, gunpowder and other pieces of equipment had to be left at the castle („bombaridis, cum pulveribus, sagittis et aliis propugnaculis in castro remenentibus”)⁸⁹.

Another incident took place in Lower Prussia in 1455, during the siege of Frydland, situated on the bank of the Łyna River, by Baltazar, Duke of Zagań, allied with the

⁷⁶ *Ibidem*, p. 87.

⁷⁷ *Ibidem*, p. 320: “ad duo miliaria, decem videlicet milibus passuum”, that is, 1 mile equaling 5,000 steps x 0.75m=3,750m.

⁷⁸ J. Długosz, *Annales...*, books 11-12, p. 96.

⁷⁹ *Ibidem*, p. 90.

⁸⁰ *Ibidem*, p. 95.

⁸¹ *Ibidem*, p. 96.

⁸² *Ibidem*, pp. 185-186: „Tormenta quoque erea in utrisque castris fuere plurima, sed Alberto maiora”.

⁸³ *Ibidem*, p. 249.

⁸⁴ *Ibidem*, p. 272.

⁸⁵ *Ibidem*, p. 319.

⁸⁶ *Ibidem*, book 12/1, p. 144.

⁸⁷ *Ibidem*, p. 166.

⁸⁸ M. Biskup, *Trzynastoletnia wojna z Zakonem Krzyżackim 1454-1466*, Warszawa 1967; idem, *Wykaz broni palnej i innego sprzętu wojennego wysłanego przez Toruń w okresie wojny trzynastoletniej (1454-1466)*, „Zapiski Historyczne”, Vol. 21/1, 1966; J. Szymczak, *Początki broni palnej...*, pp. 249-263.

⁸⁹ J. Długosz, *Annales...*, book 12/1, p. 208.

Teutonic Knights. The town, defended by Jan Skubela, a Czech commander, forced the enemy to withdraw „iam bombardis et fistulis, iam sagittis et saxis”⁹⁰. Then, in 1455, at Łasin, the defending troops destroyed a heavy demolition gun, which had damaged a large section of the defensive wall („bombarda [...] maior, qua muri quassati [...] confracta est”)⁹¹. In 1455, the gunpowder („bombardici pulveres”) stored in the houses of townspeople was the cause of the fire of Kraków, which started in the house of an armoursmith named Tomasz⁹².

In 1457, the issue of Malbork became a high priority. In August, after seizing the castle, the fortress was handed over to Oldrzych Czerwonka and his enlisted troops. On September 28th, Teutonic troops entered the town. Oldrzych Czerwonka opened fire from his bombards, positioned at the Upper Castle, without delay. According to Długosz, the bombardment was so heavy that not a single person dared to walk at the market place or on the streets. Riding through the streets of Malbork, one of the townspeople was fatally wounded by a projectile launched from a bombard. The enemy, trapped in the town and terrified by the missiles hitting and breaking the walls of houses, made special holes in the masonry to connect neighbouring buildings. Despite these efforts, many persons were killed daily hit by artillery missiles („a proieccione bombardarum”)⁹³.

Another victim killed by artillery fire was Zbigniew Czajka of Jawor, a bearer of the Dębno coat of arms, whose head was crushed by a cannon ball („pixide caput rumpente”) during the attack on the fortifications of Papowo Biskupie in 1458⁹⁴.

Malbork, lost in 1457, was seized again in 1458, using pieces of artillery („bombardis telisque”) brought from Elbląg and Gdańsk. Despite a few successful attacks, the defending troops took advantage of the attackers' passiveness, launched a raid and captured 4 heavy guns („quatuor bombardas regias exterminare ausi sunt”)⁹⁵.

Some interesting data regarding artillery can be found in Jan Długosz's account of the battle of Świecie, fought on September 17th, 1462. The Teutonic troops, defending themselves in a wagon fort (a laager), equipped with bombards and crossbows, were smashed by the Polish cavalry. The winners took 200 wagons and „quindecim bombardis”. It was probably during this raid that the Polish commander,

Piotr Dunin, was badly wounded in the hand and hit in the hip by a cannon ball, which damaged his suit of armour („in femore, violatis impetu bombarde armis, aliquantum concussus”)⁹⁶.

According to the „Annales”, bombards were also used at Osiek, Starogard Gdański and Chojnice in 1466⁹⁷, but these mentions do not provide any valuable information about the use of artillery and firearms in the Thirteen Years' War. Although many mentions found in Długosz's work are important, the relevant Teutonic records seem much richer and more precise. For this reason, our knowledge of the use of firearms and artillery in Polish-Teutonic wars, particularly the post-Grunwald period, comes mainly from the latter source of information⁹⁸.

In 1466, after the Thirteen Years' War had ended, mentions of firearms and artillery become sporadic. The only piece of information can be found in the account of the border skirmishes of 1473, which took place in the vicinity of Košice. Matthias I Corvinus, King of Hungary, attacked the castle at Modra Góra and opened fire at the pack of criminals staying in the fortress from particularly large guns („bombardis rare magnitudinis”). Then, he seized the castle at Bukowiec, whose commanders betrayed their fellow defenders and hid their weapons, including the bombards, as a result of which, the fortress surrendered to the enemy⁹⁹. Another mention refers to the raid on Podgórze launched by Hungarian troops commanded by Tomáš Tarczay of Lipiany at the beginning of 1474. On the night of 12th January, the army approached the town, which had already fallen asleep. They caused heavy damage using artillery („arcem deinde bombardis quassatam”), dug an underground tunnel and forced the castle to surrender¹⁰⁰. Regrettably, no reliable accounts of the Silesian campaign of 1474 can be found in Jan Długosz's „Annales” as his relation seems very schematic. Matthias I Corvinus, King of Hungary, encouraged Jan II, Duke of Żagań, to invade Greater Poland and attack Wschowa and subsequently, Kopanica. Despite the use of artillery brought from Wrocław, his attempts ended in a failure¹⁰¹. Our quest for information about the use of firearms and artillery contained in Jan Długosz's „Annales” ends with a mention of the fire of Kraków which swept

⁹⁶ J. Długosz, *Annales...*, book 12/2, pp. 44-45.

⁹⁷ *Ibidem*, pp. 132, 143, 155.

⁹⁸ Johann von Posilge, *Chronik des Landes Preussen (von 1360 an, fortgesetzt bis 1419) zugleich mit den auf Preussen bezüglichen Abschnitten aus der Chronik Detmar's von Lübeck*, ed. E. Strehlke, [in:] *Scriptores rerum Prussicarum*, Bd. III, Leipzig 1866, pp. 319-340; *Die ältere Hochmeisterchronik*, ed. M. Töppen, [in:] *Ibidem*, pp. 634-635, 676; *Geschichte von wegen eines Bundes*, ed. idem, [in:] *Ibidem*, Bd. IV, Leipzig 1870, pp. 75-211; Johann Lindau, *Geschichte des dreizehnjährigen Krieges*, ed. Th. Hirsch, [in:] *Ibidem*, pp. 490-637; see: J. Szymczak, *Początki broni palnej...*, pp. 235-259.

⁹⁹ J. Długosz, *Annales...*, book 12/2, pp. 320-321.

¹⁰⁰ *Ibidem*, p. 323.

¹⁰¹ *Ibidem*, pp. 331-332.

⁹⁰ *Ibidem*, p. 236.

⁹¹ *Ibidem*, p. 241.

⁹² *Ibidem*, pp. 232-233.

⁹³ *Ibidem*, p. 289.

⁹⁴ *Ibidem*, p. 305.

⁹⁵ *Ibidem*, pp. 307-308; see: *Lata wojny trzynastoletniej w „Rocznikach, czyli kronikach” inaczej w „Historii polskiej” Jana Długosza (1454-1466). Komentarz krytyczny*, prepared by S. M. Kuczyński and K. Górski, W. Dworzaczek, W. Madyda, G. Małaczyńska, B. Stachoń, T. Wasilewski, S. Zajęczkowski, I. Zarębski, Łódź 1964, p. 106; M. Biskup, *Trzynastoletnia wojna...*, p. 529.

through the streets of the city in 1475. A large number of houses and two town towers „cum bombardis” burnt down on that occasion¹⁰².

Firearms and artillery were the greatest innovation of the Late Middle Ages. However, their appearance on the battlefield was a slow and gradual process, particularly in the case of artillery, which was mainly used for besieging fortresses. Initially, when stone projectiles were in use, throwing missiles at the enemy’s fortifications from large bore guns, even with great intensity, proved ineffective. Jan Długosz’s opinion regarding firearms and artillery also evolves very slowly, which seems to be quite meaningful as, with the passage of time, that is to say, the process of his maturing not only as a man but also as a politician and a diplomat, the annalist’s interest in this type of weapon grows but he never acquires a professional attitude. Therefore,

the opinion voiced by Tadeusz M. Nowak, who argues that our leading annalist made no effort to find out about the history of firearms and artillery, should be repeated here. His mentions of the siege of Bratislava, where bombards were used as early as 1409, and of the use of bombards on a number of occasions in the 13th century seem to confirm this assumption. Moreover, Jan Długosz did not record the use of artillery at Pyzdry in 1383, which was mentioned by Jan of Czarnków. As a priest and a diplomat, he was more interested in other aspects of everyday life than its military side. For this reason, he did not pay much attention to military issues in none of his works, including „*Annales seu Cronicae incliti Regni Poloniae*”.

Translated by Zuzanna Poklewska-Parra

Streszczenie

Broń palna w *Annales seu Cronicae incliti Regni Poloniae* Jana Długosza

Broń palną określano początkowo takimi określeniami, jak łacińskie: bombardia oraz pixis, niemiecka büchse, polska puszką. Jan Długosz już we wcześniejszych księgach swoich „*Annales*” posługiwał się wyrazem bombardia. Po raz pierwszy znajdujemy ją już pod rokiem 1049 [recte: 1050 lub 1051 r.] podczas oblężenia Preszburga, czyli Bratysławy. Później występuje ona w 1256 r. pod Nakłem, następnie w 1272 r. pod Gdańskiem, w 1309 r. pod Świeciem, w 1329 r. pod Dobrzyniem, w 1331 r. pod Poznaniem, w 1332 r. pod Gniewkowem, a – jak wiadomo – na liście miejscowości obleganych przy użyciu broni palnej pierwszeństwo przypada Cividale del Friuli we Włoszech w 1331 r.

Jest wszakże faktem, iż wśród kilku hipotez na temat pierwszej wzmianki źródłowej o użyciu broni palnej w Królestwie Polskim znajduje się również jedna związana z osobą Jana Długosza. Napisał on bowiem, że w 1366 r. podczas wyprawy Kazimierza Wielkiego na Łuck, Włodzimierz i Olesko użyto m. in. „bombardis ceterisque apparatus”. Aleksander Kiersnowski w 1925 r. uznał ten zapis za wyraźny ślad używania dział w Polsce, a jego pogląd podzielił w 1935 r. Władysław Dziewanowski.

W okresie przedogniowym historii artylerii wyrazem bombardia często określano broń neurobalistyczną – i tak to czyni Jan Długosz w swoich „*Annales*” począwszy od 1049 r. Później jednak uważa się zazwyczaj bombardę za wczesną formę dział z XIV-XV w. i to dużego. Ale nie zawsze pod nazwą bombardia kryło się duże działło, skoro była nią nie tylko targańnica, ale nawet broń strzelecka typu hakownica, arkebuz i rusznica. Świadczą o tym wzmianki źródłowe, jak bombardia alias tharasnyca, a przede wszystkim

bombarda alias hakownicza, bombardia parva, bombardia manualia, bombardia seu arcabusa, bombardia alias rusznica. Zresztą sam Jan Długosz dostarcza nam argumentu w sprawie interpretacji wyrazu bombardia, wymieniając w 1410 r. piszczel, którą była „bombarda minor seu fistula”. Jako początek ery broni palnej w Królestwie Polskim – w jego ówczesnych granicach – przyjmuje się zapis Jana z Czarnkowa w jego kronice o wystrzeleniu w styczniu 1383 r. pod Pyzdrami kamiennego pocisku ze spiszowej puszką („lapidem aereo de pixide”). Pocisk przebił bramę miejską i ugodził śmiertelnie znajdującego się za nią plebana Mikołaja z Biechowa. Jest to nie tylko pierwszy wiarygodny dowód na użycie broni palnej w Polsce, w tym przypadku artylerii, ale także pierwsza znana ofiara broni palnej w Polsce. W „*Annales*” Jana Długosza zabrakło tego epizodu, nie odnotował ani użycia artylerii ani śmierci plebana Mikołaja!

Zapiski o bombardach w „*Annales*” znajdujemy od 1389 r. i ich wysyłaniu do Wilna. Transport dział, prochu i pocisków był poważnym przedsięwzięciem logistycznym. Jan Długosz wymienia jakieś czterokonne zaprzęgi do dział („quadrige bombardarum”), używane podczas wielkiej wojny z Zakonem Krzyżackim. Broń palna – ale głównie artyleria – jest obecna wielokrotnie na kartach „*Annales*” podczas wyprawy 1410 r. Wiele zapisów Jana Długosza dotyczy roli artylerii podczas oblężenia Malborka. Często jego informacje potwierdza kronikarz Krzyżacki Johan von Posilge, a ich relacje wniosły kilka istotnych spraw do naszej wiedzy o początkach broni palnej w Polsce.

Opisując spór polsko-litewski o Podole Zachodnie i walki w 1431 r. pod Łuckiem Długosz po raz pierwszy wymienił targańnicę jako rodzaj dział zamiast używanej dotąd przez niego pospolitej nazwy bombardia. Ubolewa także z powodu braku ciężkiej artylerii podczas jesiennej

¹⁰² *Ibidem*, p. 358.

wyprawy 1444 r. Władysława Warneńczyka przeciwko Turcji, gdyż raziłaby i trwożyła wojsko nieprzyjaciela. Takie pochlebne zdanie na temat artylerii wypowiedział Jan Długosz po raz pierwszy. Tak więc również kanonik krakowski dostrzegł siłę broni palnej oraz docenił jej walory na polu walki.

Broń palna nabrała dużego znaczenia podczas wojny trzynastoletniej ze względu na wiele akcji oblężniczych. Oblężenie Sztumu w 1454 r., Frydlądu i Łasina w 1455 r., Malborka w 1457 i 1458 r. odbywało się z udziałem bombard. Padały kolejne ofiary w ludziach. Jedną z nich był Zbigniew Czajka z Jawora herbu Dębno, któremu podczas ataku na fortyfikacje Papowa Biskupiego w 1458 r. pocisk armatni roztrzaskał głowę („pixide caput rumpente”).

Interesujące dane o broni palnej znalazły się w opisie Jana Długosza bitwy pod Świecinem 17 września 1462 r. Broniących się w taborze Krzyżaków przy pomocy bombardarum i kusz rozbiła polska jazda. W ręce Polaków wpadło 200 wozów i 15 dział. Zapewne podczas kawaleryjskiej szarży jej dowódca Piotr Dunin został ciężko ranny w rękę i trafiony w biodro pociskiem armatnim, który uszkodził mu zbroję („in femore, violatis impetu bombarde armis, aliquantum concussus”).

Później bombardy pojawiły się w „Annales” jeszcze kilkakrotnie w 1466 r. pod Osiekiem, Starogardem Gdańskim i Chojnicami, ale informacje o nich nie wnoszą

istotnych treści do naszej wiedzy na temat broni palnej podczas wojny trzynastoletniej. Jakkolwiek wiele z zapisów Jana Długosza jest ważnych, ale znacznie lepsze i konkretniejsze są źródła Krzyżackie i to na nich oparta jest głównie nasza wiedza o udziale broni palnej w wojnach polsko-Krzyżackich, zwłaszcza w okresie pogrunwaldzkim.

Po zakończeniu wojny trzynastoletniej w 1466 r. wzmianki o broni palnej w „Annales” pojawiają się sporadycznie. Kwerendę o niej kończymy informacją Jana Długosza, że gdy w 1475 r. wybuchł pożar w Krakowie spłonęło mnóstwo domów oraz 2 wieże miejskie „cum bombardis”.

Broń palna zaznaczała swoją obecność na polach walki bardzo powoli. Dotyczy to szczególnie artylerii, którą stosowano głównie w walkach oblężniczych. Podobnie powoli przebiegała ewolucja stanowiska Jana Długosza w odniesieniu do broni palnej. Jest ona bardzo wymowna, gdyż wraz z upływem czasu, czyli jego dorastania nie tylko jako mężczyzny, ale także polityka i dyplomaty, wzrasta jego zainteresowanie tą nową bronią, ale nie w sposób profesjonalny. Świadczą o tym jego opisy oblężenia z użyciem bombard Bratysławy już w 1049 r. oraz innych w XIII w. a pominięcie Pyzdr w 1383 r. z kroniki Jana z Czarnkowa. Jako ksiądz i dyplomata był bardziej zainteresowany innymi stronami życia niż wojskowe i dlatego nie poświęcił mu większej uwagi w swoich dziełach, w tym w „Annales seu Cronicae incliti Regni Poloniae”.

