- ¹ Institute of Archaeology Nicolaus Copernicus University in Toruń jacek.bojarski@umk.pl ORCID ID: 0000-0002-6001-5410
- ² Institute of Archaeology Nicolaus Copernicus University in Toruń wojchud@umk.pl ORCID ID: 0000-0003-3409-0991
- ³ Provincial Office for the Protection of Monuments in Toruń, Delegation in Bydgoszcz e.dygaszewicz@torun.wkz.gov.pl

JACEK BOJARSKI¹, WOJCIECH CHUDZIAK², ELŻBIETA DYGASZEWICZ³

Early medieval fortified settlements of the Pomeranian-Kuyavia limesis – archaeology and conservation issues

Abstract. The text discusses three different cases of rescue research carried out in recent years by the Institute of Archaeology the Nicolaus Copernicus University in Toruń on fortified settlements in Bydgoszcz-Stare Miasto, Pawłówek and Bydgoszcz-Fordon (historic Wyszogród), in the Kujawsko-Pomorskie voivodeship. These settlements played an important role in the early Middle Ages as centres of exchange and defence of the Greater Poland-Kuyavia borderland. Together with their immediate settlement base, they were subject to destruction processes to varying degrees. These destructions were the result of natural and human activities. The progressive degradation required wide-ranging archaeological investigations to be carried out on these sites and appropriate legal, administrative and conservation measures to be taken in order to secure the remaining relics.

Keywords: rescue research, conservation issues, early medieval fortified settlements, Kuyavia-Pomerania limes.

Introductory remarks

Rescue research has a long tradition in Poland dating back to the inter-war period. The essence of the research is the exploration of stratifications with the documentation of its entire cultural context, which is threatened by destruction due to natural or anthropogenic factors. In recent decades, the Institute of Archaeology at the

Nicolaus Copernicus University in Toruń has repeatedly conducted such research, the most spectacular of which was undoubtedly the large-scale research carried out along the route of the A–1 motorway in the zone of the former Bydgoszcz and Toruń voivodships. A special place in such research activities, however, is occupied by sites with their own field form. They constitute a distinctive element of the cultural landscape in space, which theoretically – due to their high scientific and historical value – deserve special protection. In practice, they are also often subject to processes of natural and anthropogenic destruction. Such is the case with early medieval fortified settlements situated on the Pomeranian-Kujawien border, associated with the Toruń-Eberswalde Proglacial Valley, a short section of which is a part of the natural limesis stretching from the Oder to the Vistula, which is both the geographical and historical border of Pomerania (Fig. 1).

The Pomeranian- Greater Poland/Kuyavia borderland has been studied many times by both historians and archaeologists. It was mentioned by Gall Anonim in his chronicle, and its course and importance have been confirmed by archaeologists during excavations in Santok, Ujście or Nakło (cf. Wyrwa 2004; Brzostowicz 2006; Wielgosz 2006; Kalinowski 2013). The eastern most centre is Wyszogród (castellum Visegrod/Wyszegrad) appearing twice on the pages of Gall's chronicle in the context



Fig. 1. Location of fortified settlements in Pawłówek, Bydgoszcz-Stare Miasto and Bydgoszcz-Fordon in the Pomeranian-Kujavia limes zone (development by J. Bojarski)

of battles waged by Duke Boleslaw the Wrymouth in the early 12th century (Bojarski 2019 - further literature there). The last two decades have brought sensational discoveries related to the section of the limes between Nakło and the Vistula River town of Wyszogród, in physiographic terms part of the Toruń-Eberswalde proglacial valley. Relics of two settlement centres located in Bydgoszcz in the Old Town zone and in Pawłówek, Sicienko commune (Błędowski, Chudziak 2019) were uncovered here. Both fortified settlements are dated on the basis of dendrochronology. The first one was dated to the 30s of the 11th to the beginning of the 12th century, while the second to the second half of the 11th to the beginning of the 12th century, which can be synchronised with the first and second phase of the functioning of the Wyszogród stronghold (Bojarski 2019, pp. 51-58). Spectacular discoveries at both of these sites of high scientific and historical value were, unfortunately, in both cases associated with degradation of the historic substance. It is worthwhile to present both examples, emphasising, on the one hand, the historical value of these sites and, on the other hand, the problems encountered by conservation services and archaeologists investigating these unique, not only in the Kujawsko-Pomorskie voivodship, sites. The case of the fortified settlement with a sub-ground in Wyszogród is completely different, although this site has also not been protected from partial destruction.

1. Bydgoszcz, Old Town

The archaeological site, listed in the official register of monuments, is located within the boundaries of the Old Town in Bydgoszcz, also listed in the register of monuments (decision no. A/324). Currently invisible in the field, it was still manifested on Greth's plan of 1774 in the form of a distinct terrain uplift (Schloss Berg) (Skarby 1982). In the past, the area of the former castle and its settlement hinterland was located on an island situated in the fork of the Brda River, a left-bank tributary of the Vistula. The southern arm had the character of a deadmeander, which is shallow and silted up. The eastern part of the island rose only 1–2 m above the river level. Higher up was the western part, where the seat of the castellan of Bydgoszcz was located and a walled castle was later built. A comparison of maps of the town, those from the late 18th and 19th centuries, with its contemporary version, shows the significant changes that this area has undergone over the last 250 years (Atlas historyczny 1997). During this period, the remains of the castle walls and foundations were completely demolished, the area was levelled and the old river bed and moat were filled in. Fortunately for the substance of the stronghold, the eastern low-lying part of the area remained mostly free of buildings. Practically until the 1890s only light storage structures were built here, of which shallow poured foundations (visible on the town plan of 1875) and a brick building with a partial basement remained, inhabited until the mid-1990s (Fig. 2). The aforementioned



Fig. 2. Bydgoszcz-Stare Miasto, site 1. Foundations of a building erected on the relics of the rampart (plot no. 95) (photo by S. Kalinowski)

building played a significant role in determining the correct extent of the settlement area (Bojarski, Chudziak 2019, pp. 63–66).

The first excavations at the site were carried out in 1992–1997 (Fig. 3). They were conducted by the Team for the Study of the History of Bydgoszcz at the Nicolaus Copernicus University in Toruń, led by Professor Jadwiga Chudziakowa. The research was financed by the Bydgoszcz City Council, which had previously issued a decision allowing a private owner to develop plots 94 and 95 on Grodzka Street without consulting the Provincial Office for the Protection of Monuments in Toruń and therefore, without conservation conditions. Research within the boundaries of both plots was carried out between 1992 and 1995, with a total area of 3.5 acres being explored (Chudziak, Dygaszewicz 2006). At that time, the residential house standing on plot 95 prevented full recognition of the exposed rampart, the relics of which reached the northern wall of the building. In the accessible area, heavily decayed fragments of timber structures have been exposed beneath modern and contemporary levelling layers. These represented the remains of aboveground log houses and street paving built of pine timber, as well as a multi-layered rampart structure with a well-preserved charred grate and post section erected of oak (Fig. 4).

The width of the rampart captured most fully in trench XXI/95 was calculated to be 10 m, measured at the base. Its construction consisted of an earth mound piled on a layer of fascine, reinforced on the inside with wooden logs in the form of a massive divider. On the outside it was reinforced by a clay-earth embankment, clad on the river side with closely fitting stones forming a regular structure. The front of the rampart was stabilised and secured by vertically driven oak posts. The relics

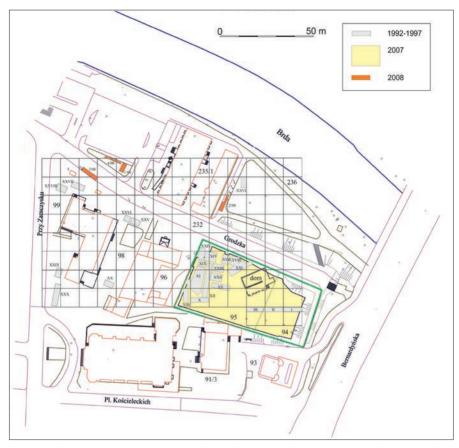


Fig. 3. Bydgoszcz-Stare Miasto, site 1. Plan of the site with the range of works executed in 1992–1997 and 2007–2008 (development by J. Bojarski)

of the buildings and passageways were found to be laid out on three levels in places. The state of preservation of the wooden substance was very poor. Nevertheless, it was possible to identify several buildings and, in the southern part of the site, also the remains of a wooden jetty used as a river harbour. On the basis of samples of oak wood – cut from the charred beams of the divider, as well as vertical elements from the base of the rampart – the time of the construction of the rampart was estimated to be between 1037 and 1038. The probable course of the rampart and thus the limits of the fortress was also plotted.

In 1995–1997, the same research team carried out a reconnaissance in the western part of the stronghold, at the site of the later castle (the area at the junction of Przy Zamczysku and Grodzka Streets). Seven trenches (no. XX, XXV–XXX) were excavated there, covering an area of over 1.5 acres (Fig. 3). Relics of the wooden structure of the rampart and the buildings of the fortified settlement

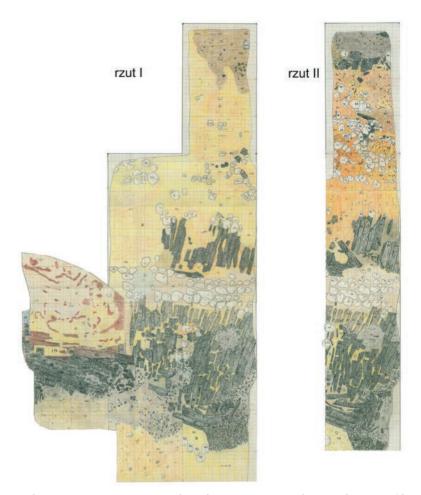


Fig. 4. Bydgoszcz-Stare Miasto, site 1. Relics of a remparts exposed in trench XXI/95 (development by E. Dygaszewicz)

were uncovered there, as well as the fill of an almost 3 m deep moat (excavations XXV/95 and XXX/97), surrounding the stronghold from the east. It is possible that it existed in an earlier period. The research on plots 94 and 95 was terminated due to what seemed at the time to be the maximum exploration of the undeveloped area available for research, as well as the resignation of the then owner of the area from its development and putting it up for sale.

The next stage of the research – the largest in its spatial scope – came in 2007 (Fig. 3). At the request of the Bydgoszcz City Office, in a letter of August 8, 2006, the Provincial Office for the Protection of Monuments in Toruń, Delegation in Bydgoszcz determined the conservation requirements for the decision on development conditions, and then agreed a draft decision for an investment covering an

area of 25 acres at Grodzka and Bernardyńska Streets (plots numbered 94, 95, 232 and 54). It concerned the construction of a hotel and apartment building with other commercial services. This decision contained the following provision: the developer is required to provide archaeological investigations including excavation work prior to construction work throughout the project area.

The excavations were carried out in 2007 by the Institute of Archaeology at the Nicolaus Copernicus University in Toruń, under the direction of Wojciech Chudziak and Jacek Bojarski. Initially planned for a period of three months, the work eventually lasted more than six months and radically changed the perception of this archaeological site. Research at much of the site was hampered by the high level of groundwater, fed by the nearby Brda River and the frequent rainfall that summer. The exploration covered the entire area of the planned development, including the site where a brick building had previously been sited, occupying an area of 1.5 acres (Fig. 3). After the removal of the wall foundations and basement walls, the building structure of the eastern section of the rampart was exposed in full cross-section, as well as relics of dwellings on its western side and elements of the construction of quays and shoreline fortifications of the island (Fig. 5). The uncovered early-medieval cultural stratification contained massive movable

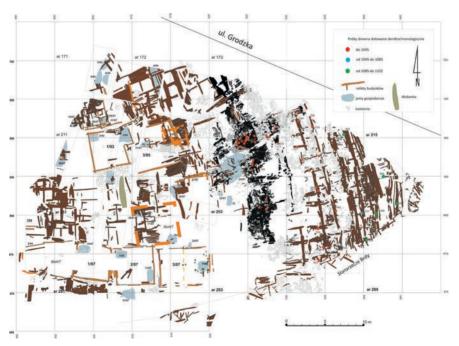


Fig. 5. Bydgoszcz-Stare Miasto, site 1. Plan of relics of buildings, embankment construction and shoreline fortifications discovered during the research in the years 1993–1995 and 2007 (development by J. Bojarski)

historical materials, including above all a collection of nearly 20,000 fragments of ceramic vessels and over 150 items of everyday use.

The scale of this discovery and, in particular, the excellent state of preservation of the timber elements comprising the rampart structure (Fig. 6) came as a great surprise. A quick decision had to be taken and a further strategy for action had to be developed. Therefore, a meeting was convened (the first one on August 30, 2007 and the next one on September 18, 2007) with the participation of the Principal of the Provincial Office for the Protection of Monuments in Toruń, a representative of the investor (BUDIZOL S.A. company), representatives of the Institute of Archaeology of the Nicolaus Copernicus University and the Municipal Conservator of Monuments in Bydgoszcz. It was concluded that in the current situation, due to the threat of high financial penalties and the necessity to pay compensation to the investor, it is not possible to stop the research work and suspend the investment. Moreover, according to the opinion of the team of archaeological conservators of



Fig. 6. Bydgoszcz-Stare Miasto, site 1. Cross-sections through the remparts (A) along two lines (a–b and c–d) (photo by J. Bojarski and B. Kowalewska)

the Institute of Archaeology at the Nicolaus Copernicus University, the wooden structures of the embankment could not be conserved at the site of the discovery, and its possible reburial would not guarantee the stopping of the started destruction processes. It was therefore agreed that once the dike had been fully documented, its individual parts should be dismantled and excavated, and then transported to the Institute of Archaeology for proper conservation and preparation for display in museum conditions (until then, the storage place for the wood was to be the Institute warehouse). The conservation costs were covered in equal parts by the investor, the City of Bydgoszcz and the National Heritage Institute as part of a ministerial programme.

Work lasted for several weeks, involving the documentation of the layers of exposed wood lying on several levels, the numbering of its individual elements, and its dismantling – at first solely by the muscular efforts of the people working at the site, and later also with the help of a mechanical winch (this is how the vertical elements anchored in the river mud were excavated). The fragments of timber obtained in this way, including numerous joists, yoke beams, posts and hooks, were cleaned after being transported to the Institute of Archaeology at the Nicolaus Copernicus University, and their drawing and photographic documentation was carried out. They were then subjected to de-fumigation baths and conservation treatments under vacuum conditions in specially constructed tubs. After the whole process, which lasted many months, all the details of the rampart's architecture were stored in the collection warehouse of the Institute of Archaeology, for the time being with no real prospect of their exposition. Only a small fragment of the rampart is presented as part of the permanent exhibition at the Leon Wyczółkowski Museum in Bydgoszcz (Fig. 7).

2. Pawłówek, commune of Sicienko

A site in Pawłówek, located 5 km west of the centre in Bydgoszcz, was discovered in 1881. It has been described in the literature as an upland settlement and dated to the 11th–early 13th century. In older literature, it was known as Schlossberg, mistakenly sometimes referred to as Prądy Młyn. Partial levelling of the site took place in the late 19th and early 20th centuries and was associated with the construction of the Bydgoszcz – Piła railway line and fortifications in 1914 (southern zone of the site). Further destruction occurred in the north-western zone, where a farmstead with residential and economic buildings was constructed. In spite of repeated references in the literature and numerous inspections, the settlement was first examined in 1994, as part of a campaign to verify the settlements in the area of the Świecie region, conducted by the Institute of Archaeology at the Nicolaus Copernicus University in Toruń. At that time a strong transformation of the site's form and a significant



Fig. 7. Bydgoszcz-Stare Miasto, site 1. Elements of the remparts during exploration (A), construction detail of the rampart stored in the Institute of Archaeology at the Nicolaus Copernicus University in Toruń storehouse (B–C) and a fragment of the rampart displayed at the exhibition in the L. Wyczółkowski Museum in Bydgoszcz (D) (photo by J. Bojarski and R. Kaźmierczak)

degree of damage were found. During a short verification action in the northern part of the presumed maidan, sounding pits and boreholes were marked out along one axis. In these, layers related to the rampart, already strongly levelled at that time, and traces of internal development in the form of single cavities were found (Błędowski, Chudziak 2019, pp. 133–136).

On September 9, 2008 the Provincial Office for the Protection of Monuments in Toruń, Delegation in Bydgoszcz received information about the functioning on the settlement of an enterprise conducting economic activity consisting in the extraction of sand and systematic destruction of the archaeological site (Fig. 8). During the local inspection, the owner of the site presented a concession for the extraction of the main common mineral, i.e. sand (field A) and the accompanying mineral – peat (field B) from the 'Pawłówek II' deposit. In the investigation carried out at the Poviat Starosty in Bydgoszcz and the Sicienko Commune Office, information was obtained that, in accordance with the regulations in force, the Starosty had asked the Commune Office for an opinion. The Commune Office



Fig. 8. Pawłówek, Sicienko commune, site 11. Plan of the settlement with the range of works on the 1995 map. 1 – soundings and boreholes from 1994, 2 – soundings from 2008, 3 – range of works from 2008, 4 – range of works from 2009, 5 – range of works from 2010, 6 – range of works from 2011–2013 (photo by W. Ochotny)

in Sicienko failed to carry out a proper investigation of the issued decision and, without informing the Provincial Office for the Protection of Monuments in Toruń, issued a positive opinion to the concession (5.08.2004), but with a provision on the required agreement with the Principal of the Protection of Monuments – however, this condition was not fulfilled.

As a result, the Provincial Office for the Protection of Monuments on September 12, 2008 issued a decision ordering the owner to immediately cease sand and peat exploitation on plot no. 75/6 located in Pawłówek and to carry out archaeological rescue research. In the same month (26.09.2008), with the participation of archaeologists from the Nicolaus Copernicus University, a detailed inspection of the site was carried out, during which the exposed profile of the dyke was documented, the scale of damage was recognised and the state of preservation of the remaining part of the site assessed. Despite efforts to preserve the historic substance of the site, the owner of the site, in a letter dated September 25, 2008, appealed against the decision of the Provincial Office for the Protection of Monuments. In the judgment of October 10, 2007, The Provincial Administrative Court, indicating the licensed nature of economic activity, in terms of mineral extraction, distinguished between mining works and earthworks. Consequently, it concluded that Article 32.5 of the Act on the protection and care of historical monuments could not constitute a basis for the first instance conservation authority to stop mineral extraction works. Therefore, by decision of March 4, 2010, the Minister of Culture and National Heritage revoked the contested decision in its entirety and discontinued the proceedings of the first

instance authority. The justification shows that 'In the eyes of the law, earthworks and construction works must be distinguished. Earthworks, especially levelling and raising of the ground, are not always related to construction works'.

This provision sounds absurd, but unfortunately the current Polish *Act on the protection and care of historical monuments* does not include the possibility of stopping mineral excavation works in the event of discovering a historical monument within their boundaries. Article 32 of the Act provides for the possibility of halting activities only in the case of construction and earthworks, and according to the judgment of the Provincial Administrative Court presented above, mineral extraction is a mining work and not an earthwork, despite the destructive nature of open-cast mines. This legal interpretation had certain consequences, including the fact that, according to the decision of the Ministry of Culture and National Heritage, the rescue research of the remains of the fortress had to be carried out exclusively with funds from the Provincial Office for the Protection of Monuments.

The rescue investigations initiated in 2008 by the Institute of Archaeology at the Nicolaus Copernicus University in Toruń under the direction of Piotr Błędowski aimed at the first stage to document the overburden of the embankment exposed along the line of the escarpment. It was over 30 m long and about 2–4 m high, and had been created during unauthorised sand extraction (Błędowski *et al.* 2011). In the longitudinal profile of the rampart, remnants of compressed timber from the sandwich structure were recorded, as well as layers adjacent to the rampart associated with the construction of the interior of the fortified settlement.

Numerous series of vessel pottery and artefacts dating from the time of the stronghold's operation, including silver earrings, iron knives and fragments of antler combs, were recovered from the humus soil piled up with a bulldozer in several parts of the site. A wide-ranging excavation was necessary to save the rest of the fortress from destruction. In parallel with the exchange of letters between the Provincial Office for the Protection of Monuments, the owner of the mine and the Ministry of Culture and National Heritage, work was carried out, covering almost 6 acres of the area in the same season, and the remaining parts of the fortified settlement in the following seasons. In total, an area of almost 46 acres was surveyed.

Despite the difficult conditions of the work and the full destruction of the fortified settlement, it was possible to determine the functional and spatial layout of the fortified settlement, including its buildings, the extent and construction of the ramparts, during the six seasons of research (Fig. 9). The best-preserved stratification associated with the rampart was recorded along the eastern edge of the site. It consisted of a sandy embankment up to 4 m high and 12–15 m wide, with a partly preserved sandwich structure. The dike on the southern side, built along the edge of the Noteć valley, had a different structure. The base of the rampart was a clay mound with a foundation of oak boxes covered with sand and clay and a sandwich structure. On the outer side, the base of the embankment was faced

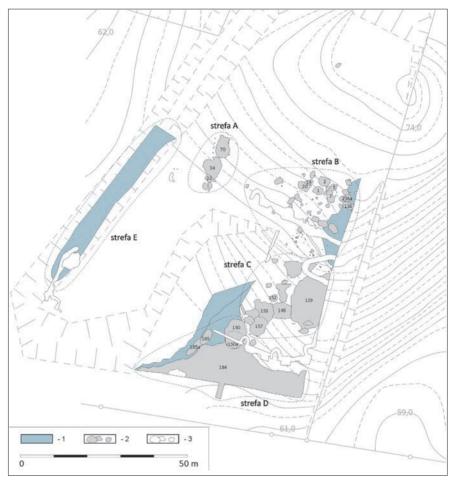


Fig. 9. Pawłówek, Sicienko commune, site 11. Plan of objects and cultural layers exposed in 2009–2013. 1 – early medieval layering, 2 – early medieval cultural pits, 3 – modern cultural pits (development by W. Ochotny)

by a row of loosely but regularly spaced oak posts, possibly also providing support for a jetty or mooring platform. Dendro dates were obtained from timber samples recovered from the internal development, indicating that wall trunks were used for their construction as early as the 1160s (Błędowski, Chudziak 2019, Fig. 4.36). The last repairs were carried out at the beginning of the 12th century, exactly at the same time as similar work was carried out on the Bydgoszcz stronghold (Bojarski, Chudziak 2019, Fig. 2.11).

The very intensive use of the stronghold was indicated by the large number of structures of a residential but also of an economic and storage nature situated around the, probably hollow, maypole, which were accompanied by open hearths and cookers with stone and clay enclosures. They occurred in four distinct clusters (marked as zones A–D) (Fig. 9). In the smallest cluster, to the north-west, the remains of two residential structures were identified (ob. 34 and 70). Both were sunken into the ground, but object 70 probably also had an above-ground part, the negatives of which were left by columns aligned along a single line parallel to the edge of the object. Zone B occupied the higher part of the settlement adjacent to the eastern section of the rampart. This cluster consisted of almost a hundred pits of varying function, including a semi-terrestrial dwelling (object 20) and associated hearths arranged in two rows. One of the structures in this alignment was interpreted as an antler and non-ferrous metal working workshop.

Objects in zone C – located in the south-eastern part of the settlement – played a special role (Fig. 10). Here the remains of a building (objects 129, 129a) were



Fig. 10. Pawłówek, Sicienko commune, site 11. Zone C of settlement; A – object 129, view from north; B – view of objects 129, 129a and 129b, view from west (photo by W. Ochotny)

discovered. Due to the extent of the floor part (17.6 x 10.4 m and the very large thickness of the layers forming the fill, almost 5 m), it was considered to be the destruction of a two-storey building with a basement, serving as a residential, storage and commercial or administrative building. This interpretation is indicated by the location in the south-eastern part of this zone, close to the remains of the quays, and the assemblage of objects discovered in the backfill of this building, consisting of 28 weights, two fragments of a balance, 14 coins and items of foreign origin.

The remains of buildings with surviving timber-framed walls occurred in zone D, adjacent to the southern section of the rampart (objects 150, 150a). Both had timber-faced cellars inside, sunk below usable level. They were situated in the zone of the presumed entrance to the fortified area from the side of the pre-valley and the overlying basin allowing water communication, above all the transport of people, animals and material goods. Therefore, the hypothesis that they represent the remains of a customs chamber may be justified.

In total, nearly 60,000 fragments of pottery and more than 1,000 artefacts were recovered from the cultural stratification of the site in question during the research carried out in 2008–2013). Due to the relatively short period of use of the site, they constitute priceless testimony to the material culture of the Pomeranian-Polish borderland in the 2nd half of the 11th century (Błędowski, Chudziak 2019, pp. 157–171).

3. Bydgoszcz-Wyszogród

Against this background, the state of preservation of the third fortified settlement, located in the Fordon district, destroyed for centuries by the waters of the meandering Vistula River, looks completely different (Fig. 11). The eroding Vistula escarpment repeatedly exposed the layers of the rampart and the inner part of the stronghold. This prompted many researchers to make lustrations of the site and collect source material exposed by the eroding slope. The first large-scale survey, consisting of documenting a cross-section of the site along the edge of the scarp, was carried out by Tadeusz Wieczorowski in 1932. Subsequent research - also consisting of a study of the edge zone of the settlement was carried out in 1958–1960 by Jadwiga and Lechosław Rauhut from the State Archaeological Museum in Warsaw in cooperation with Czesław Potemski from the Museum in Bydgoszcz (Bojarski 2019, pp. 34-35). The Vistula escarpment, secured by piling in the 1970s, now appears to have been stabilised and the erosion process stopped. However, the hinterland of the settlement, where the Bydgoszcz Building Ceramics Works operated, has been threatened with destruction. In the 1970s and 1980s, several interventions of the conservator's office were necessary due to the earthworks carried out by the brickworks and the storage of construction waste on the site. In 1990, the Bydgoszcz City Council passed a resolution to develop a 'Programme for the protection and



Fig. 11. Bydgoszcz-Fordon, site 150. Fortified settlement and settlement adjacent to the north (locality 151) (photo by R. Kaźmierczak)

management of the early medieval fortified settlements in Wyszogród and Zamczysko', but it was never implemented. Later that year, Bydgoskie Przedsiębiorstwo Ceramiki Budowlanej undertook to take steps to demarcate a protective zone around the settlement. In order to strictly define the size of the protected area, the Provincial Office for the Protection of Monuments commissioned the Institute of Archaeology at the Nicolaus Copernicus University in 1991 to carry out a sounding and verification study of site 151, under the supervision of W. Chudziak. Several dozens of soundings were made, in which layers related to the residential and economic development of the settlement were documented. On this basis, a strict archaeological protection boundary was geodetically delineated, running at a distance of 50 m from the base of the outer ramparts (Fig. 12). This excluded a large part of the site from the development plans being drawn up at the time.

In 2012–2013, the Institute of Archaeology at the Nicolaus Copernicus University in Toruń again carried out excavations under the supervision of J. Bojarski, this time commissioned by the Municipal Conservator of Monuments in Bydgoszcz. These confirmed the correctness of the delineations made and the need to protect the site in the zone so delineated. In 2015, the owner of the site, the Cegielnie Polskie Company, decided to sell the plots adjacent to the protected zone for the purposes of housing investments. This time, the survey research covered the area located outside the conservation zone. The aim of these surveys was to establish the actual extent of the site, including the presence of relics of buildings requiring advance research. The entire area covered by the development plans was crossed by seventeen sounding ditches in a N–S alignment. The data obtained during the surveys were used to draw up a map which strictly defined the zones designated for anticipatory archaeological

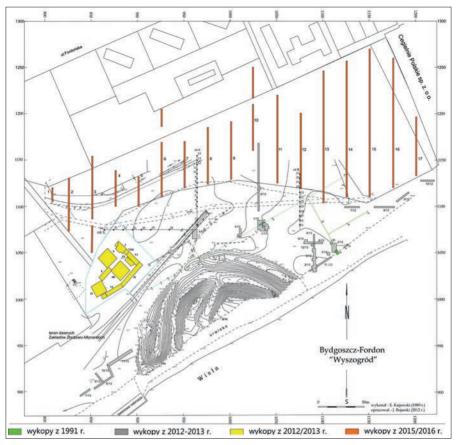


Fig. 12. Bydgoszcz-Fordon, site 151. Range of archaeological works conducted on the settlement in 1991 and in 2012–2016 (development by J. Bojarski)

investigations (over 1.5 ha in total) and subject only to supervision (Bojarski 2019, pp. 48–51, Fig. 1.18). These arrangements were included in the prepared study of the conditions and directions of spatial development in Bydgoszcz and repeated in the local spatial development plan prepared in 2017. Outside the indicated zone, development was allowed on condition that prior archaeological research was carried out – the area was marked in the study and plan as zone W (archaeological protection) and OW (archaeological observation). On the basis of an agreement signed between the new owner of the site, the JAKON Company and the Nicolaus Copernicus University in Toruń, since 2020 the Institute of Archaeology has been carrying out archaeological research at the site, which has covered the northern and north-eastern peripheral parts of the sub-ground settlement. During the summer excavation season of 2021, systematic archaeological investigations covered more than 16 acres, in which almost fifty of economic pits were documented (Bojarski *et al.* in print) (Fig. 13).

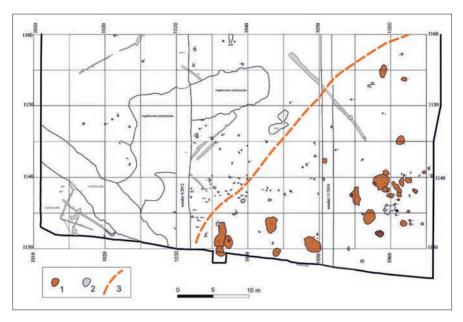


Fig. 13. Bydgoszcz-Fordon, site 151. Plan of objects discovered in 2021. 1 – early medieval objects, 2 – modern and contemporary objects, 3 – borderline of the early medieval settlement (development by J. Bojarski)

Conclusions from the perspective of the problem of archaeological heritage protection

The briefly discussed early medieval fortified settlements (and their immediate hinterland) located within the administrative boundaries of the present-day city of Bydgoszcz are among the best recognised sites of their kind in the Pomerania-Wielkopolska border region. The scale of the research carried out on these sites was impressive. However, the conservation conditions under which such a comprehensive exploration and at the same time destruction was carried out using a controlled research experiment, which was a full-scale excavation in the methodological sense, were different. The separately described cases of fortified settlements, despite some similarities, are fundamentally different. Firstly, these are extremely valuable sites in terms of the scientific and historical value of the relics discovered. Despite the fact that they were known as early as the 19th century, comprehensive knowledge about them was only acquired as a result of rescue work forced by various investments (a perverse conclusion comes to mind: if they had not been destroyed, our knowledge would be incomparably smaller). In the case of Pawlowko and Stare Miasto Bydgoszcz, the plots were private and there was no

entry in the register of fortified settlements. In the case of the suburb of Wyszogród, the extent of the zone entered in the register of monuments was limited only to the relics of the rampart. On the other hand, the required surroundings of the fortified settlement were not protected. The fundamental differences, however, result from a different administrative procedure.

In view of the irreversible transformation of the historic substance, the remaining relics should be given special protection. In the case of the stronghold in Pawłówko – there are already grounds for entering the eastern line of the rampart and the sub-fortified settlement adjacent to the NE side into the register of monuments. To this end, the the Institute of Archaeology at the Nicolaus Copernicus University in Toruń in 2021 carried out supplementary research, which covered the eastern part of the terrain adjacent from the NE with the preserved relics of the open settlement, marking the natural boundary of this settlement complex (a deep swamp). Similar protection should be given to the relics of the bulwark of the settlement in Bydgoszcz-Stare Miasto, situated only 0.5 m under the modern pavement of Grodzka Street, in the area of the city square and the parking zone next to the PZU and BRE Bank buildings. Any earthworks should be given special treatment in the vicinity of this site. In this case, the further fate of the wood obtained during the research in Bydgoszcz at Grodzka Street, stored so far in the warehouse of the the Institute of Archaeology at the Nicolaus Copernicus University in Toruń, which should be the subject of a future exhibition presenting the history of the city, is an open question. The situation is best at present in Bydgoszcz-Wyszogród, where the small remnant of the castellan's stronghold seems to be in no danger, and the plans for the development of the area adjacent to the protected zone offer the prospect of properly exposing the site and giving it new social functions related to historical education.

References

- Atlas historyczny, 1997, Atlas historyczny miast polskich, vol. 2: Kujawy, 1: Bydgoszcz, ed. A. Czacharowski, Toruń.
- Błędowski P., Bojarski J., Chudziak W., 2011, Badania ratownicze na wczesnośredniowiecznym stanowisku w Pawłówku, gm. Sicienko, stanowisko 11, [in:] XVII Sesja Pomorzoznawcza, vol. 1: Od epoki kamienia do wczesnego średniowiecza, eds. M. Fudziński, H. Paner, Gdańsk, pp. 651–663.
- Błędowski P., Chudziak W., 2019, Pawłówek, gm. Sicienko (stanowisko 11), [in:] Wczesnośre-dniowieczne grodziska w Polsce, vol. 1: Powiat bydgoski. Województwo kujawsko-pomorskie, eds. W. Chudziak, J. Bojarski, Toruń., pp. 131–171.
- Bojarski J., 2019, Bydgoszcz-Fordon (stanowisko 150), [in:] Wczesnośredniowieczne grodziska w Polsce, vol. 1: Powiat bydgoski. Województwo kujawsko-pomorskie, eds. W. Chudziak, J. Bojarski, Toruń., s. 33-61.

- Bojarski J., Błędowski P., Kaźmierczak R., Weinkauf M., in print, Badania archeologiczne na wczesnośredniowiecznej osadzie podgrodowej w Bydgoszczy-Fordonie (historyczny Wyszogród) w roku 2021, [in:] XXIII Sesja Pomorzoznawcza, red. E. Fudzińska, Malbork.
- Bojarski J., Chudziak W., 2019, Bydgoszcz-Stare Miasto (stanowisko 1), [in:] Wczesnośrednio-wieczne grodziska w Polsce, vol. 1. Powiat bydgoski. Województwo kujawsko-pomorskie, eds. W. Chudziak, J. Bojarski, Toruń, pp. 63–107.
- Brzostowicz M., 2006, Wielkopolska północna w czasach przedpiastowskich, [in:] Pradolina Noteci na tle pradziejowych i wczesnośredniowiecznych szlaków handlowych, eds. H. Machajewski, J. Rola, Poznań, pp. 269–280.
- Chudziak W., Dygaszewicz E., 2006, Wczesnośredniowieczny ośrodek osadniczy w Bydgoszczy. Stanowisko 1 i 2, [in:] Stan i potrzeby badań nad wczesnym średniowieczem w Polsce – 15 lat poźniej, eds. W. Chudziak, S. Moździoch, Toruń, pp. 351–358.
- Kalinowski S., 2013, Pogranicze kujawsko-pomorskie we wczesnym średniowieczu. Wybrane problemy badawcze, Acta Universitatis Nicolai Copernici, Archeologia, vol. 33, pp. 111–127.
- Skarby, 1982, Skarby wczesnośredniowieczne z obszaru Polski. Atlas, eds. L. Gajewski et al., Wrocław.
- Wielgosz Z., 2006, Pogranicze wielkopolsko-pomorskie we wczesnym średniowieczu, [in:] Pradolina Noteci na tle pradziejowych i wczesnośredniowiecznych szlaków handlowych, eds. H. Machajewski, J. Rola, Poznań, pp. 307–327.
- Wyrwa A., 2006, Czynniki związane z procesem formowania się grodów limesu nadnoteckiego we wczesnym średniowieczu. Stan i perspektywy badań, [in:] Pradolina Noteci na tle pradziejowych i wczesnośredniowiecznych szlaków handlowych, eds. H. Machajewski, J. Rola, Poznań, pp. 281–305.