

THE REMAINS OF THE MEDIEVAL HARBOUR IN PUCK (NORTHERN POLAND): A FEW WORDS ABOUT THE RESULTS OF PREVIOUS RESEARCH

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Abstract

The remains of a Medieval harbour were discovered in Puck in 1977. Preliminary research was conducted the next year by Wiesław Stępień. The site consists of a set of timber construction remains, located on the ground and strengthened with fascine, between which fragments of ceramics appear, especially in the area of the base of the pier. There are also a lot of pieces of simply processed trunks and branches stripped of bark nearby. Also, some scattered pieces of oak logs with yoke openings have been found lying distributed between the piles. Some help in attempting to reconstruct their arrangement comes from the mooring piles, which have a characteristic rectangular cross-section, and are still located on the sea bed. Pieces of five wrecks (one log boat, and four made from planks) have been found between the harbour constructions. Looking at the chronological arrangement of the site, created slowly on the basis of results obtained from dendrochronological analysis, and supplemented with radiological research, we can assume that the harbour was in use between the tenth and the 14th centuries.

Key words: underwater archaeology, remains of Medieval harbour, sea level change, protection of cultural heritage, south Baltic, Puck Lagoon.

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Introduction

The remains of a Medieval harbour were discovered in Puck in 1977. Preliminary research was conducted by Wiesław Stępień, in cooperation with the Regional Museum in Puck. He carried out research until 1984, when he presented the results in a series of articles, in which he estimated the area of the underwater archaeological site at 12 hectares. He reported finds of potsherds and bones, as well as wrecks, among the remains of the harbour construction. Based on C-14 dating and dendrochronological analysis, he dated the period of the harbour's activity to the ninth to the 13th centuries (Stępień 1984, 1986, 1987).

In 1985, the Regional Conservator of Monuments ordered a halt to the underwater research in the Puck Lagoon. Because of fears about the destruction of the wrecks by natural conditions and the low water level, the log boat was extracted in 1989. It has been dated to 1190 AD \pm 70 years. Apart from the log boat, a large futtock, a stem and a bailer have also been excavated, as they were not attached to other elements of construction or the equipment of the boat, and were moving freely on the seabed as a result of waves, which might have resulted in their loss.

After an interval of several years, research was undertaken again by a team of archaeologists from Nicolaus Copernicus University in Toruń, in cooperation with

the Central Maritime Museum (today the National Maritime Museum) in Gdansk. The research is still being conducted infrequently to this day (Fig. 1).

Raising the P-3 wreck, which was lying on the sandy sea bed, was the first task undertaken during the research. After documentation and excavations, the wreck was passed on to the conservation laboratory of the Central Maritime Museum in Gdansk.

Another wreck labelled P-5 was found accidentally during the study of the P-3 wreck. The new wreck consisted of the remains of a 12-metre-long ship, lying between 0.5 to approximately three metres under the level of the seabed. During the next few years, the remains were documented; the wreck has been defined, like P-3, as having been built in the Slavic technique, which was popular in this region in the Middle Ages. Based on dendrochronological analysis, the ship is believed to have been built in the mid-13th century. The fact that the wreck was lying so deep under the sea bed was the reason for renewing the discussion on changes in the sea level in the early Middle Ages in the region of Puck Bay. Nowadays, the remains of the harbour are over 250 metres away from the coastline. Andrzej Zbierski pointed that fact out in his publication, and suggested that it was related to changes in the sea level in the southern Baltic area (Zbierski 1986). In 1997, geological and palynological analyses were carried out in order to reconstruct the changes in the

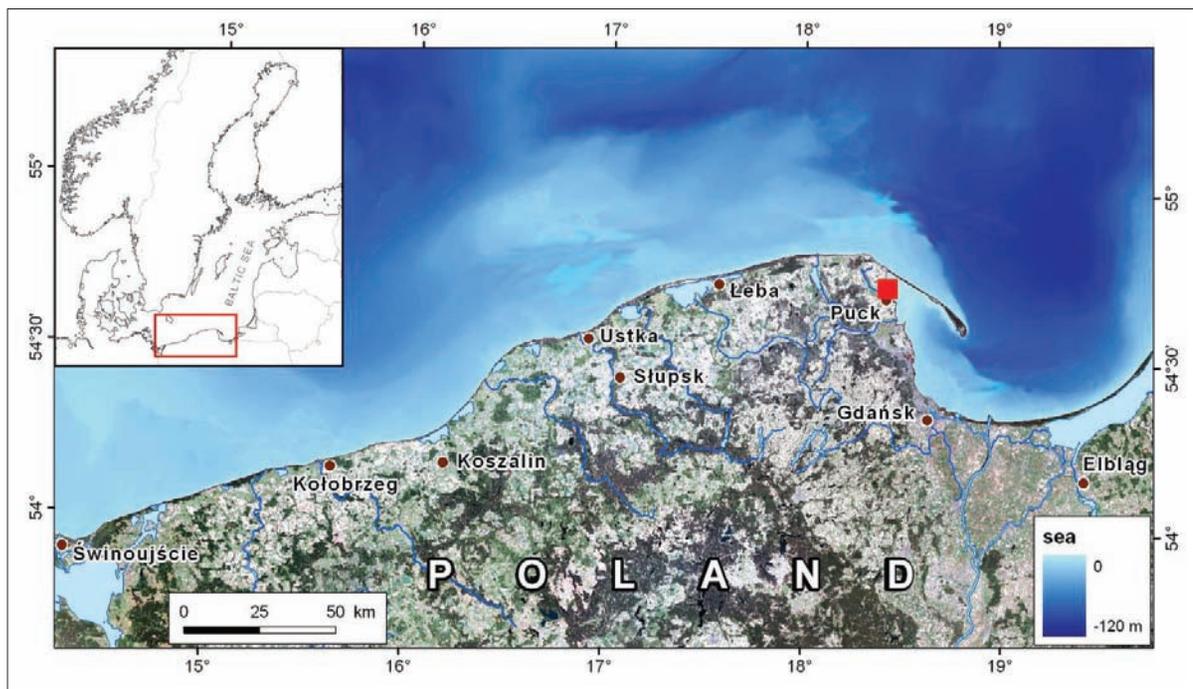


Fig.1. The location of the Medieval harbour in Puck.

natural environment in the last millennium. However, even though the sample collected contained valuable information, it was insufficient to reconstruct a paleoecological history of the region completely. The need for further research has been pointed out (Pomian et al. 2000, 36). The issue was investigated again during the 'MACHU' project, which was carried out by the CMM in cooperation with the Marine Geology Branch of the Polish Geological Institute between 2007 and 2009 (Miotk-Szpiganowicz et al. 2009, 80ff.). Investigations related to sea level and shoreline changes were carried out also in 2000-2002 and 2008-2010. It has been deduced that in the early middle ages the water level was at least several dozen centimetres lower than today (Uściniowicz et al. 2007, Uściniowicz et al. 2013)

Between 1999 and 2006, the CMM team studied the P-2 wreck, which was interesting due to its mixed construction technique and chronology (Fig. 2). The biggest concerns arose in the dating suggested by Stępień according to research conducted in the 1980s. Based on a C-14 analysis, he dated it to 555 AD (Stępień 1984), with a later correction to 810 AD (Stępień 1987). As a result of research conducted by the CMM on the basis of dendrochronological dating, the dating of the construction period has been corrected to the tenth century (Ważny 2007; Litwin 1995; Litwin, Pomian 2009, 426).

In 2006, the wreck was passed on to the museum conservation laboratory, and is now being prepared for reconstruction. Due to deteriorating visibility at the site, which made it impossible to conduct research, the ex-

cavations were postponed until 2013. In that year, the Florian Ceynowa Puck Land Museum, together with the CMM, conducted the project 'Update of Archaeological Documentation', which supplemented the previous research. The main goal of the project was to enter the remains of Puck harbour into the register of archaeological monuments, which would result in the special protection of the site. The task was fulfilled in 2014. The Puck Medieval harbour is the first underwater archaeological site in Poland to be put under such protection.

The non-invasive study of subsurface archaeological structures is planned for the near future. This is possible due to cooperation with the Niedersächsisches Institut für historische Küstenforschung (NIhK), which coordinates research into Baltic and North Sea harbours under the SPP 1630 Harbours Project.

In the last few years, studies continued concerning the relationship between changes in the sea level and the end of the functioning of the port in Puck during the Middle Ages. These studies were carried out mainly by the Polish Geological Institute and the University of Gdańsk, in cooperation with the National Maritime Museum in Gdańsk. The results point to a later date for the disappearance of the port of Puck than that suggested by Błażej Śliwinski. He pointed out a date for the end of the importance of the port to the tenth or 11th century, which will be presented later in this article

The results of this interdisciplinary research were published in 2013 (Uściniowicz et al. 2007; Uściniowicz et al. 2013). The results provided evidence that human

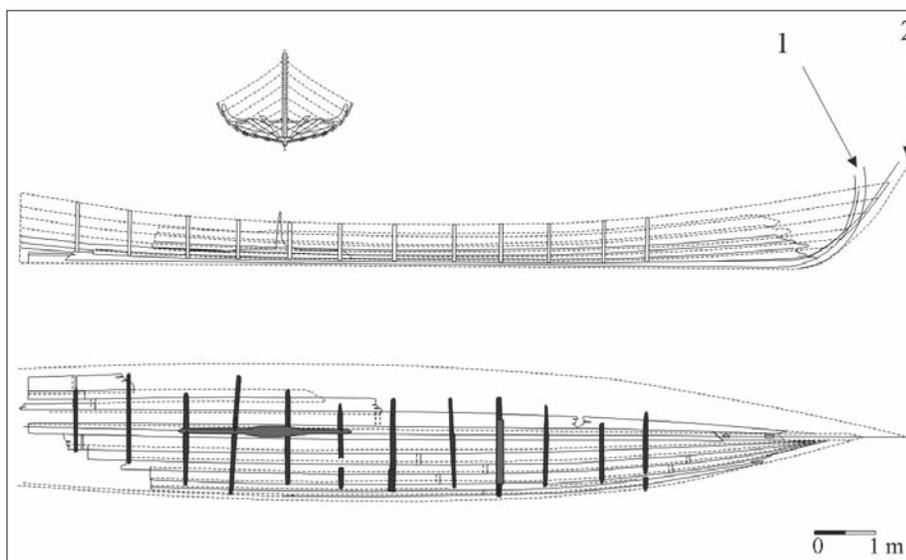


Fig. 2. A reconstruction of the P-2 wreck, according to Stepien (1) and Litwin (2).

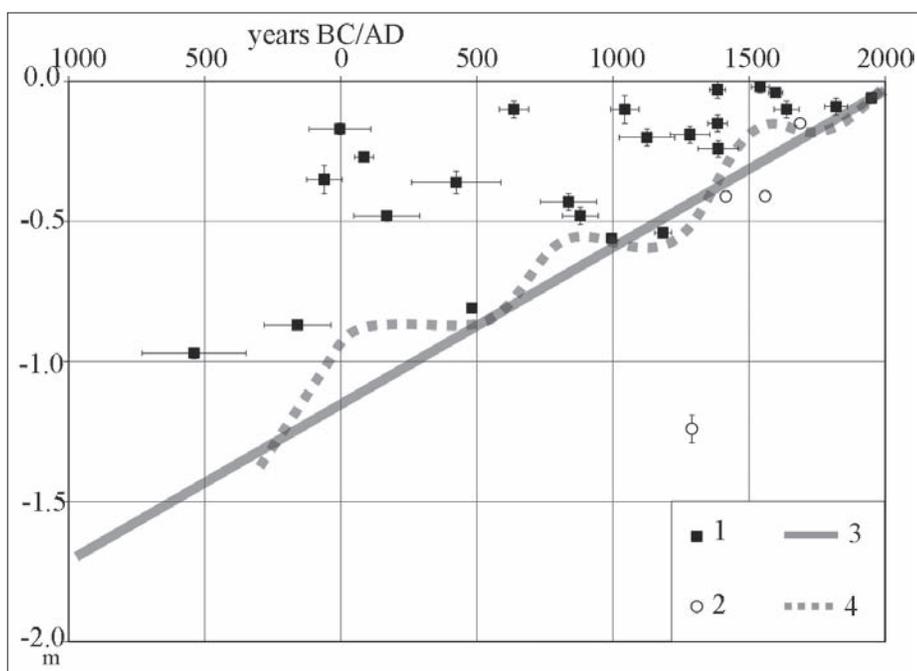


Fig. 3. The relative water level change curve of the Puck Lagoon: 1 peat; 2 marine shells; 3 curve of relative sea level (smoothed model); 4 curve of relative sea level (cyclic model; after Uścińowicz et al. 2013).

economic activity in the study area started in about 500 AD, which is clearly related to the climate warming recorded in the period around 500 to 600. The creation of the port took place around the tenth century (Pomian 2004), when the Medieval Warm Period began. In the period around 800 to 900, the sea level was about 0.75 to 0.70 metres lower than it is today, and the hydrodynamic conditions were relatively calm. The frequency of storms was relatively low, and the storms were not too strong, as is evidenced by the lack of traces of sea water inflow on peatland in this period. The development of the port is connected to the disappearance of

rush communities. A stable or slowly increasing level of water in the Puck Lagoon continued until about 1100 to 1200.

Beginning around 1200, the climate cooled, starting the first phase of the Little Ice Age. From approximately 1250 to 1300, the frequency and strength of the storms also increased. An acceleration in the rise of the sea level probably also occurred at this time. In the period 1400 to 1500, the Puck Lagoon water level was about 0.30 to 0.25 metres lower than it is today, so during the interval between 1100 and 1400, the water level in the

lagoon rose about 0.4 metres, and thus the growth rate did not exceed 1.5 millimetres a year (Fig. 3).

The end of the functioning of the port, set at about 1300 to 1350 (Pomian 2004), occurred at a time of clear climate cooling at the beginning of the Little Ice Age and frequent and heavy storms. However, the climate and hydrological changes occurring at that time were not the sort of catastrophe that could destroy the port. Perhaps ice floes drifting on to the shore during winter storms contributed to the partial destruction of the port's facilities.

The destruction of the port is connected to a clear reduction in human economic activity in this area, which is reflected in the results of pollen and chemical analysis. The sediments from this period are also characterised by a large amount of wood charcoal, suggesting the possibility of a large fire. Therefore, it seems probable that the port was destroyed by a fire. Traces of a fire in the port's facilities also indicate this. The fire could have occurred in low water level conditions caused by the high atmospheric pressure and winds from the south, southeast or east. Short-term fluctuations in the water levels in the Puck Lagoon are primarily dependent on the air pressure and the wind direction in the southern Baltic (Nowacki 1993). In the period 1300 to 1350, the mean sea level was lower than the present 0.45 to 0.35 metres, and for a time it could have been further decreased by air pressure and wind by about 0.5 to 0.6 metres. So the fact that the traces of fire are now about one metre below mean low water is perfectly possible for a credible explanation. The loss of economic activity, reducing the acreage, and the use of metals can be associated with the destruction by fire both of the port, and probably also the settlement, and with the deterioration of weather conditions at the beginning of the Little Ice Age.

The mouth has most likely been in its present location for about 150 years, when drainage work was carried out in the Reda and Płutnica valleys. During the functioning of the port, in the Medieval period, the Płutnica estuary could have been in another place. Sediments of older outlet cones were eroded. This may confirm the location of the wreck of the P-5, which is much deeper below the sea bed than the other wrecks from the same period. Cultural layers associated with the Middle Ages were only preserved near the wreck of the P-5. Geological studies conducted in the rest of the remains of the harbour indicate that most of the upper layers was destroyed by the impact of the marine environment (currents, waves and ice floes) (Pomian et al. 2000). Therefore, further research will focus, among other things, on the area.

The rise and fall of Puck harbour: a short historical introduction

In the historical outline prepared as a part of the project 'Update of Archaeological Documentation' carried out in 2013, Śliwinski writes that 'for an understanding of the phenomenon of the Early Medieval port in Puck, it is only possible at the moment to look at it from a broader historical perspective. For many decades, a discussion went on in Polish historiography on whether the inclusion of Pomerania in the state of the first Piast dynasty in the tenth century represents an area remaining under the authority of one, or at most two or three independent rulers, or whether it was an area inhabited by many smaller, independent tribal groups. In the discussions, the second was recognised as most likely by historians and archaeologists' (Śliwiński 2013). In his paper, he writes that the dominant opinion in the former historiography was that the main land route in eastern Pomerania ran towards the River Odra through Gdańsk, Sopot and Oksywie, from where, avoiding Puck, it was supposed to turn west into the glacial valley of Reda and Łeba, just as the most important modern road does (Łęga 1949, 182). However, contemporary scholars presume that the glacial valley route did not gain in importance before the times when the Teutonic Order had begun to drain the wetlands. It is argued that even in the 13th century, other routes were more important, for example the Gdańsk–Oliwa–Szemud–Pobłocie–Strzecz–Rozłazino–Godętowo–Łęczycy–Łebień–Białogarda route, and further through Wicko in the direction of Słupsk and Kołobrzeg, or from Strzecz to Słupsk (Ślaski 1969, 40).

However, in the period before the conquest of Pomerania by the Piast dynasty, the route that includes Puck is thought to be the crucial one. Puck is the place where the famous Roman 'amber route' is supposed to begin, as the land stretching from Lake Żarnowieckie through Karwia, Ostrowo, Jastrzębia Góra, Rozewie, Chłapowo, along the Hel peninsula, the coast of Puck Bay, and the coast of the Gulf of Gdańsk, is rich with precious material (Zbierski, 1986). The very important road, known at the beginning of the 14th century as *via regia*, had the clear implication that it went from Gdańsk to Puck.

He writes further that 'defining the settlement region on the shores of the Gulf of Gdańsk as a separate tribal area is somehow justified, as the existence of a distinct Pomeranian tribe in the basin of the River Wierzyca is widely acknowledged by scholars; some of them even claim that this is the Uerizanami tribe, mentioned by the Bavarian geographer at the end of the ninth century (Łowmiański 1986, 17). This settlement region, with its dense network of hill-forts, overlaps with the 13th-century Duchy of Tczew, which confirms the

durability of the oldest settlement systems (Śliwiński 2013, 38ff.).

In his opinion, Gdańsk could not have been the main settlement on the shores of the Gulf of Gdańsk; there are no archaeological finds dated to the ninth or tenth century which could confirm its significance. It was Kępa Oksywska that served as the centre. Natural defence conditions (the hill-forts at Oksywie, Obłuże and Dębogórze, settled since the eighth century), the highly fertile soils, and also the fact that it is the only place in eastern Pomerania with a natural occurrence of brine, made the place very attractive to settlers.

The strong defensive position of Kępa Oksywska, with very steep cliffs, made it impossible to locate an important sea port in the close vicinity, apart from local fishing havens. The necessity for a port arose with the fall of the famous Prussian trade post of Truso, in contemporary Janów Pomorski near Elbląg. Trading posts located along the coast (such as Wolin and Kołobrzeg) were a meeting place not only for merchants from the Baltic Sea basin but also for Arabian traders, which is proven by finds of Arabian coins. The tribe that occupied the west coast of the Gulf of Gdańsk took advantage of the fall of Truso, filling in the gap in the chain of trading posts with their own large harbour located in the nearest suitable place, the mouth of the River Putnica on the Puck Lagoon; the settlement (contemporary Puck) derived its name from the river (*putnica* means swampy water) (Treder 1998, 171ff.).

According to Śliwiński, ‘the harbour was built in this very spot as a result of a few basic factors: the aforementioned impossibility of building a harbour at the base of Kępa Oksywska, the calm waters of Puck Bay (as a northern part of the Gulf of Gdańsk), and the suitable location.’

Puck harbour emerged in these circumstances; it had undoubtedly been used earlier as a local fishing port, but it became dominant in the region from the 920s or 930s AD.

His claim that, according to archaeological excavations conducted on the site since 1977, large-scale construction work in the harbour in that period made it comparable to other large European harbours, seems doubtful. On the basis of the latest dendrochronological analysis, there were three development phases of the port. Perhaps it was a rather large fishing harbour used periodically as a place of trade exchange (Pomian et al. 2000, 28ff.). What supports this presumption is the trail of old coin finds on the route from the south: treasures of Arabian coins from Oliwa and Sopot dated to 951 (Kiersnowski 1959, 76). Another treasure was found in an unidentified field today in the vicinity of

Puck in 1853. It is thought to consist of 32 Arabian coins dated to 898 to 945, and, less certainly, Khan Bulgars and German coins, and even of silver jewellery. The date of the hiding of the treasure is estimated at after 965 (Kiersnowski 1959, 87).

The moment of the destruction of the port of Puck, resulting from dendrochronological dating, is different to that suggested by Śliwiński. In his opinion, ‘These traces of destruction found by archaeologists should be treated as evidence of heavy fighting, which happened around the tenth century when the early Polish state advanced into the region of the Gulf of Gdańsk and met with the resistance of its inhabitants.’

The time after the conquest was the end of the great significance of Puck harbour. It was not a result of the destruction itself, which could have been repaired, but of the Piast dynasty’s tendency to substitute all conquered centres with new ones built by them; this applied to the administration, and to restraining the roles of the old tribal centres. Not only did the harbour in Puck fall, it was also the end of the importance of Kępa Oksywska. Both functions, mercantile and political, were taken over by Gdańsk, one of the regular hill-forts guarding the settlement region of the Gulf of Gdańsk from the southeast (Śliwiński 2013, 42).

However, as has already been mentioned, in the light of the results of dendrochronological dating, the port functioned until the beginning of the 14th century (Pomian et al. 2000, 30). This is also indicated by dendrochronological dating of the P-1 wreck done in 2013 by Ważny. He analysed six labelled samples, one unlabelled piece of a plank, and an unidentified piece of oak from the P-1 wreck.

Table 1. The Puck P-1 wreck: wood growth characteristics

Sample no.	No. of tree rings sapwood		The last growth ring	Synchroni-zation	Date	Spe-cies
1	244	B/T	-	AD 1120-1363	1378 ^{*/} / ₆	Oak
2	165	0	-	AD 1199-1363	1378 ^{*/} / [^]	Oak
3	66	0	-	AD 1276-1341	1356 ^{*/} / ₆	Oak
4	150	B/T	-	AD 1216 - 1365	1380 ^{*/} / ₆	Oak
5	154	0	-	AD 1181-1334	1349 ^{*/}	Oak
6	140	0	-	AD 1219-1358	1373 ^{*/} / ₆	Oak
7	140 (+1)	0	-	AD 1220-1359	1375 ^{*/} / ₆	Oak
8	<30	6	+	Non-dated sample		Oak

The outer layer of wood, sapwood, which is necessary for precise dating, was not preserved in the analysed samples. The border between sapwood and heartwood in samples 1 and 4 was observed under the microscope. Taking the dispersion of outcomes and the possibility of the dating of the youngest heartwood growth ring into consideration, the unequivocal result is that the ship was built around 1380. The most probable date for cutting down the trees, as the sapwood statistics suggest, is 1379.

The protection of the remains of Puck harbour: current state and needs

The project 'Update of Archaeological Documentation' carried out in 2013 made it possible to evaluate how the archaeological site has changed during the past 15 years. The photographic and video documentation, as well as a bathymetric database, has been updated. The graphic data has been collected in digital form in GIS format, a modern model of spatial data infrastructure (which is complementary to INSPIRE recommendations). The data acquired can serve as evidence in legal proceedings concerning the protection of the archaeological site, as well as informative-educational material presented in printed and virtual form on the Florian Ceynowa Puck Land Museum web page <http://muzeum puck.pl/aktualizacja-dokumentacji-archeologicznej/>

The current state of preservation

The studied archaeological site is located in the close vicinity of the shore and the town of Puck. The most serious changes to the sea bed were inflicted by dredging work on a fairway leading to the former Puck Mechanical Works.

The fairway, in the NE-SW direction, is 560 metres long and 90 metres wide. Directly by the shore (up to 100 metres from the coastline) the dredging works covered an area parallel to the coast up to 250 metres wide. The fairway is approximately four metres deep; the relative depth in relation to the surrounding sea bed varies from two metres in the northern part of the studied area to four metres by the shore. Dredging work has also been carried out in the eastern part of the studied area, where the fairway to the fishing port was prepared. An area of approximately 3.7 hectares was dredged to a depth of four metres. Apart from dredging work, the structure of the upper sea bed layers has undoubtedly been damaged by anchoring, putting out fishing nets, and other actions related to fishing and tourism.

Furthermore, in the western part of the site, the water level has fallen, due to the excavation of sand for rebuilding beaches on a 114 kilometre section of the coast, which was conducted approximately 700 to 1,000 metres to the east of the edges of the site.

The coastline in the area of the site has a natural character. It is being eroded by waves and ice, apart from the mouth of the River Plutnica. Only the 250-metre-long section by the former Puck Mechanical Works is reinforced by embankments and sea walls. Furthermore, the coastal reinforcements, sea walls and wharves adhere directly to the borders of the studied area to the east and the west.

In recent years, a plan to construct a marina with moorings for 300 yachts, breakwaters, car parks and other necessary infrastructure has been developed by the Puck municipality. It is located on the edge of the protected Medieval harbour area. It is presumed that a privateers' haven was located in that place. Unfortunately, no remains have been found yet, and the only graphic evidence of the existence of reinforcements and quays in the area of the planned construction is a draft of a harbour and shipyard on Ferdinand Gatkant's map *Delineatio Situs Pucensis* from 1634. The necessity of preparing archaeological documentation on the area was pointed out in the report to the marina project done by the NMM in 2016.

Documentary work conducted in 2013 showed that the deterioration of the archaeological structures is progressing at a slow but constant rate; it is most visible in the southern part of the area. The bathymetric documentation conducted allows the monitoring of changes in the seabed, under conditions of the systematic repeating of the data collection (Fig. 4). This activity should be included in the plan for managing the site's protection.

The P-1 wreck has been severely damaged. The construction has been torn apart, and planks have been scattered around the original find place. The fact that the keel and the bottom planking have survived is due to the temporary protection of the wreck conducted by the Maritime Museum in 1995, when the remains were covered with sandbags, which partly saved the wreck from destruction.

The development of a site management and protection plan is an extremely difficult task. The fact that the area of the site exceeds ten hectares, and its location is in the close vicinity of an intensively used coastline, makes it impossible to protect it by restricting all ship transport in the area. Puck is a tourist resort, and it is justified in its attempts to develop the water sports it offers. However, this must not be done by harming the unique monument, which should have a place in

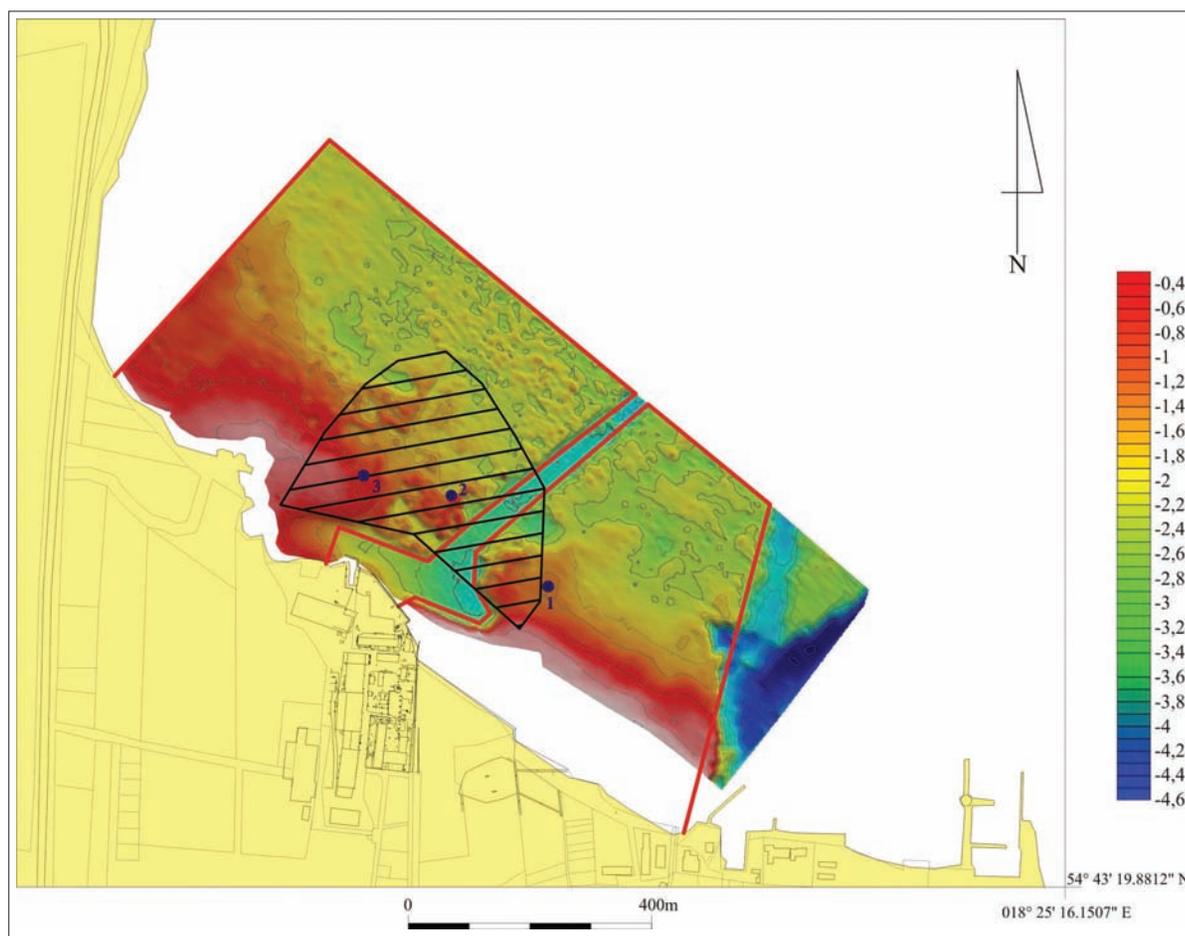


Fig. 4. A bathymetric plan of the protected area, with a selected range of archaeological structures, and visible damage caused by dredging. The range of archaeological structures bordering the protected area. Wrecks of planking boats: 1 Wreck P-1; 2 Wreck P-2; 3 Wrecks P3 and P-5 (the authors).

the town's development policy. Birka in Sweden and Roskilde in Denmark, where archaeological sites have been turned into basic tourist attractions, are two good examples to follow.

In the case of the already protected site, it is necessary to take action to protect the P-1 wreck *in situ*. Methods developed in many European countries can be adopted for this. The most popular method is to cover the wreck with thick nets or geotextile.

The method was first developed by Dutch archaeologists. It protects a wooden construction from mechanical damage resulting from natural conditions (Manders 2011).

The complete protection of the remains of harbour structures is a very difficult task, because of the site area. Therefore, the most valuable parts should be chosen and protected in the same way as the P-1 wreck. Geotextile protection of pile constructions was used for the first time in the late 1990s in Germany and Switzerland, in Lake Zurich and Lake Constance (Bodensee).

It should be possible to periodically monitor the state of preservation of the remains. Educational and non-

invasive accessibility to the site, which is part of the maritime history of Puck, is crucial for the inhabitants, in order to agree on the necessity of protecting the harbour. Otherwise, every attempt at preserving this unique monument will fail.

New issues introduced since 2016 into programmes funded by the European Union handle the historical potential of Puck in an interesting way. The overall goal is to support the creation of thematic tourist routes centred on the underwater cultural heritage and its preservation, as this is a way to promote the maritime tourism sector, as well as diversifying tourism possibilities. A developed 'tourist product' is a combination of different features (the characteristics of places visited, means of transport, accommodation, specific activities) revolving around the specified field of interest, such as travelling in nature, visiting attractive places inland and in rural areas, sightseeing in places of historic and cultural value, doing specific sports, etc. The term 'tourist product' does not refer to the economic concept of the product; rather, it is used by specialists in tourism for specific possibilities, like the cultural tourist heritage, ecotourism, urban tourism, rural

tourism, health tourism, winter tourism, etc. ‘Development of the product’ refers to a process which includes every action necessary to provide tourists with enough services to satisfy their needs, excluding introducing the product to the open market. A monument which becomes an attractive part of the tourist potential could be seen in a more positive light by local authorities, who usually see archaeological sites as obstacles to development in the region.

We hope that this potential is noticed and is used for the benefit of all.

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VIDURAMŽIŲ UOSTO PUCKE
(ŠIAURINĖ LENKIJA)
LIEKANOS. KELETAS
PASTABŲ APIE ANKSTESNIŲ
TYRIMŲ REZULTATUS

**IWONA POMIAN, BŁAŻEJ
ŚLIWIŃSKI, SZYMON UŚCINOWICZ,
TOMASZ WAŻNY**

Santrauka

Viduramžių uosto Pucke liekanų buvo aptikta 1977 m. jūroje, apie 250 m atstumu nuo dabartinio kranto. Kitais metais Wiesławas Stępieńas ten atliko žvalgomuosius tyrimus (1–4 pav.). Šioje povandeninėje archeologinėje vietovėje buvo rasta fašina sutvirtintų medžio konstrukcijų liekanų, keramikos – ypač daug jos buvo prie pirsu polių. Tyrimų vietoje aptikta daug apdirbtų medžių kamienų fragmentų ir nužievintų šakų. Tarp polių pasitaikė atsitiktinių ažuolinių sijų fragmentų, tarp jų ir su sujungimo kiaurymėmis. Senovinio uosto konstrukcijos atsekamos pagal dar jūros dugne tebesančius charakteringus stačiakampio skerspjūvio švartavimosi poliūs.

Tarp uosto konstrukcijų buvo rasta kelių laivų fragmentų (vienas luotas ir keturi iš lentų pastatyti viduramžių laivai). Dendrochronologinių ir radioanglies tyrimų metodais nustatyta, kad šis uostas buvo naudotas nuo X iki XIV a.

Geologiniai ir palinologiniai tyrimai buvo atlikti siekiant nustatyti, kaip keitėsi gamtinė aplinka paskutiniame tūkstantmetyje. Tyrimai parodė, kad šioje vietoje žmonių ekonominė veikla prasidėjo apie 500 AD, klimato pašiltėjimo laikotarpiu. Radiniai prie Pucko paskatino atnaujinti diskusijas apie jūros lygio kitimą Pucko įlankos regione.

Tyrinėta archeologinė vietovė yra arti kranto ir prie Pucko miesto. Todėl ypač sunku rasti būdų, kaip išsaugoti šią po vandeniu esančią archeologinę vietovę. Vietovė užima daugiau kaip 100 ha plotą ir yra dabar intensyviai naudojamoje priekrantėje, taigi jos neįmanoma apsaugoti uždraudžiant čia plaukioti bet kokiems laivams. Puckas yra kurortinė vietovė, todėl yra suprantami siūlymai priekrantės vandenyse vystyti vandens sportą, tačiau tai turi būti daroma išvengiant žalos šiam unikaliajam paminklui. Jo apsauga turėtų būti numatyta miesto plėtros strategijos politikoje.