

ARCHEOLOGICKÝ ÚSTAV AKADEMIE VĚD ČESKÉ REPUBLIKY V BRNĚ

# PŘEHLED VÝZKUMŮ

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100 Státní archeologický ústav 100 let moderní archeologie v českých zemích

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STUDIE A KRÁTKÉ ČLÁNKY  
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# AN ATTEMPT TO IDENTIFY PLACES ASSOCIATED WITH TRADE AND EXCHANGE IN EARLY MEDIEVAL STRONGHOLDS IN THE EXAMPLE OF OSTRÓW TUMSKI IN WROCLAW

## POKUS O IDENTIFIKACI MÍST SPOJENÝCH S OBCHODEM A SMĚNOU NA PŘÍKLADU OSTRÓWA TUMSKÉHO VE WROCLAWI

ALEKSANDRA PANKIEWICZ

### Abstract

*On the example of Ostrów Tumski in Wrocław (Silesia, Polish lands) an attempt of identification of places associated with trade and exchange in early medieval strongholds was made. The alleged marketplace existed in the stronghold from the end of the 11<sup>th</sup> century to the end of the 12<sup>th</sup> century. Its existence would be confirmed by the empty square between buildings, the accumulation of finds related to trade and exchange as well as spending free time. The connection of some buildings from Ostrów Tumski with commercial activities is also not excluded. On the basis of analogies from the main centers of the Piast state and selected sites from the Bohemian and Moravian territories, the potential location of the marketplaces was analyzed. Attention was drawn to the relationship between finds related to trade and exchange with other manifestations of economic activity (e.g. non-ferrous metallurgy). An attempt was also made to answer the question when and in what political and economic conditions such places could be created.*

### Keywords

*Early Middle Ages – trade and exchange – circulation of bullion – strongholds – Silesia – Wrocław*

## Introduction

In the discussion on the function of the so-called central places of the Piast state and other important strongholds from Central Europe existing from the 10<sup>th</sup> to 12<sup>th</sup>/13<sup>th</sup> century, the administrative, military and ideological role of them has been emphasized. However, the function of these strongholds as places of exchange goods was also very important. In many cases trade played a key role in the development of the most important proto-urban centres of Central Europe, but is there a possibility to localise places associated with trade and exchange within the strongholds (or outside them)? and if so, based on what finds can they be identified?

The identification of such places does not constitute a major problem in the research on late medieval towns in which space they were clearly separated. In the early medieval realities in this type of research, centres associated strictly with trade and exchange, such as the Baltic Sea coast commercial emporia,<sup>1</sup> come to the fore. In turn, the location of such areas within tightly built-up inland strongholds is problematic, in the layout of which the space associated with this type of activity cannot be perceived.

This article is just an attempt to identify places associated with trade in the example of Ostrów Tumski in Wrocław in relation to other similar centres existing from the 10<sup>th</sup> to 12<sup>th</sup>/13<sup>th</sup> century. Another important aspect of the topic will be the analysis of squares and other places within the strongholds that may have been associated with commercial transactions, but also served as meeting places or a space to spend free



Location of the study site on a map of Europe.  
*Poloha studovanej lokality na mapě Evropy.*



time. The problem of the development of market places in relation to the economy changes of this period will be also discussed.

### Places hypothetically associated with trade in the Wrocław stronghold

One of such places, probably associated with trade and exchange, is the square, along with adjacent streets, discovered within the stronghold on Ostrów Tumski in Wrocław. This square was unearthed in the central part of the stronghold (trench I/72-78 – Fig. 1) in settlement levels dating from the fourth quarter of the 11<sup>th</sup> century to the fourth quarter of the 12<sup>th</sup> century (layers G, F1, F, E1, E2, E; Fig. 2, 3). Its surface was 63 m<sup>2</sup>. According to the discoverers, the square was to serve as a market place with butcher stalls, but also as a place for public gatherings and a communication course (Kaźmierczyk et al. 1976, 189–191). Can one really assign this function to this place?

The basic determinant of the marketplace being there is the presence of an empty space surrounded by buildings. In the densely built-up area of the Wrocław stronghold it is indeed a rarity. Apart from undefined structures in the form of random posts, clusters of wood or small economic features, the area of the square has remained empty for almost 100 years.

The finds from the square itself and its immediate vicinity could also indicate the commercial function of this place. A cross penny originally attributed to Bolesław the Bold and dated to around 1060 was found within the layer F on the street connected to this square (Fig. 3a; Kaźmierczyk et al. 1976, 191, Fig. 11). Some scholars also tried to associate the issue of this type of coin with the person of Władysław Herman (Butent-Stefaniak, Malarczyk 2009, No. 80). Currently it is believed that they are rather associated with Bolesław the Wrymouth and should be dated to 1097–1102 (Nakielski 2012). In addition, two lead discs with the dimensions and appearance of coins



Fig. 1. Wrocław – Ostrów Tumski. Archaeological trenches – a plan; by K. Chrzan and A. Pankiewicz.  
Obr. 1. Wrocław – Ostrów Tumski. Plan archeologicznych sond; autoři K. Chrzan a A. Pankiewicz.

were also found in this location (inv. No. 21a/74). It is not excluded that they were supposed to imitate coins or were blanks to mint counterfeit ones. An identical find also comes from the neighbouring layer E (plots 34, 38, inv. No. 147a/74). The find of one coin and perhaps two imitations does not allow conclusions to be drawn about the commercial destination of this place. It is worth noting, however, that notwithstanding that, finds of early medieval coins in the Wrocław stronghold are extremely rare.<sup>2</sup>

The next group of finds associated with trade and exchange are weights and elements of balances (layers E, E1, F, F1 – Fig. 2a, b; 3a, b; Table 1). A balance's arm was found in the street next to the alleged marketplace (layer E1, Fig. 3b). The second artefact, found in the square itself and defined as a part of a balance, raises doubts as to its function. It could be a distorted balance holder. Apart from certain and uncertain elements of balances, from the square and its surroundings come four iron weights and several lead weights. Determining which of the lead objects could actually serve this function, however, remains problematic as weights are sometimes determined as lead discs with a diameter of 2–3 cm with an opening in the central part (e.g., Hołubowicz 1956, 240–245; Cofta-Broniewska 1962, 297, footnote 7). The varying weight of these objects (usually ranging between 2.5–3.8 g), which does not have a simple translation into the measuring units of the time, puts their function into question. They are often treated as fishing net sinkers, although their function has not been convincingly explained to date. Usually they are called weights. It is also not excluded that they might have been used, as well as other small lead 'weights', as replacement money (for a discussion on the function of these objects, see: Wachowski 1974, 173–181; Rozmus, Bodnar 2004a, 64–66; Bodnar et al. 2007; Rozmus 2014, 215–220). On Ostrów Tumski in Wrocław six of them were discovered near the square and in nearby houses. However, no concentration of these items was found. As a weight, a conical lead artefact provided with a hole was also identified. The shape and dimensions of this object indicate that it could be classified as a lead spindle whorl, although attention is drawn to the occurrence of such artefacts along with other 'weights', sometimes in places of concentration and processing of lead (comparatively on the function – Wachowski 1974, 181–183; Rozmus, Bodnar 2004a, 64; Bodnar et al. 2007, 15–25; Rozmus 2014, 215–220). As a weight, however, a barrel-shaped lead disc weighing 14.29 g can be considered. On one of the flattened sides it has a recess probably connected with the marking. This weight can be classified as type C in the Steuer classification (1997, 320–321). Analogous specimens also come from other parts of Wrocław (Wachowski 2010, 105–107, Fig. 136; Paszkiewicz, Wachowski 2018, 529, Fig. 403–408). Despite the fact that only some of the finds can really be considered

as associated with trade, their increased frequency in the vicinity of the square draws attention. Within the remaining 17 settlement levels identified in this part of the site, two more fragments originating from one balance and six weights were discovered, with three of them occurring in the layers directly above (layer D) or directly below (layer G1) the level of the square. Weights and elements of balances from older layers were discovered rather in buildings or their immediate surroundings (Table 1). A similar number of merchant accessories (12 weights and four fragments of two different balances) comes from trench III, located about 50 m to the north-west. However, within it, these findings did not occur in the streets or in the empty spaces between the buildings, but almost exclusively in the houses (see Table 1). One of the few exceptions is the balance holder discovered in the street, in the layer dated to the second quarter of the 11<sup>th</sup> century within trench IIIA/2. Two baskets from one balance were also found back in the 19<sup>th</sup> century near the Church of the Holy Cross (?). Unfortunately, the exact location and context of the discovery of these objects are unknown (Langenheim 1936, 295, Plate XXXI: 2; Wachowski 1974, 199). However, it cannot be ruled out that they were located near trenches I-II/72-78 and III/82-86 (both trenches are located no further than 50–80 m from the Church of the Holy Cross). In other trenches conducted on behalf of the University of Wrocław, merchant accessories were not found.<sup>3</sup>

Apart from the above-mentioned items, some other finds can also be associated with trade and exchange. Spatial analysis of glass jewellery discovered in the Wrocław stronghold showed that most of this type of decorations were found in houses where they were deposited as the personal property of their proprietors or rather proprietresses. Sometimes these decorations were found in the streets, where they probably ended up as a result of losing or destroying the object. Within the E–G layers associated with the functioning of the 'marketplace', jewellery items were found only in individual homes. A distinct concentration of them (especially of glass finger rings) was recorded, however, within empty squares – the so-called marketplace and the so-called woodworking square. Therefore, it was assumed that in these squares products were manufactured and sold (see Pankiewicz et al. 2017, 40–41). A similar pattern was observed in relation to metal jewellery – temple rings and finger rings. These jewellery items were also concentrated within empty spaces in squares (Fig. 2–3). Also in this case, their local production is not excluded. This could be indicated by the discovery of several fragments of lead wire, with a diameter corresponding to the finished temple rings. In the vicinity of the square there was also an accumulation of lead in the form of the aforementioned wires and, above all, amorphous objects and irregular lumps weighing up to 10 kg. Attention was also paid to the presence of numerous fragments

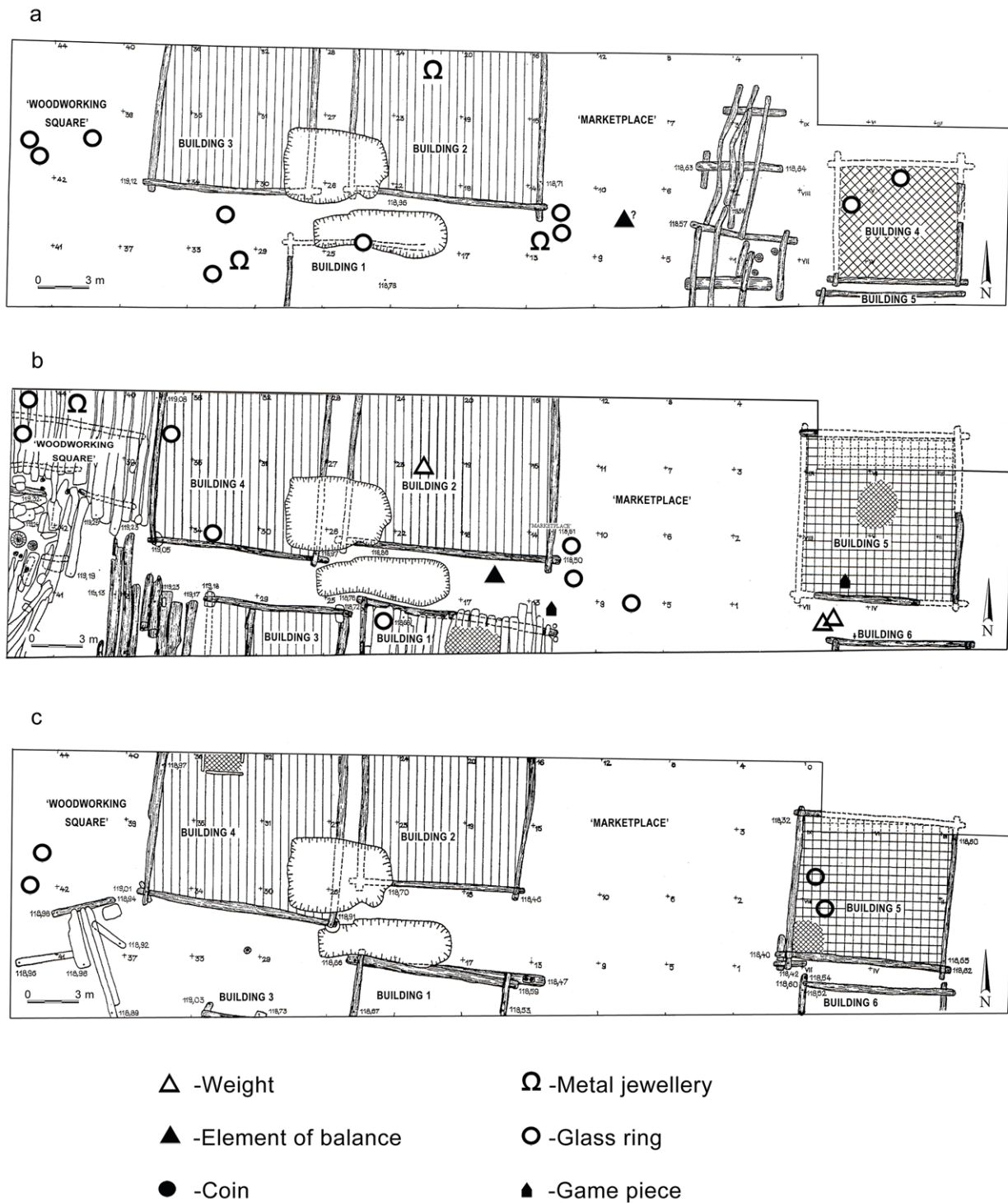


Fig. 2. Wrocław - Ostrów Tumski. Trench I: a - plan of the layer E; b - plan of the layer E1; c - plan of the layer E2. According to Kaźmierczyk et al. 1976, Fig. 16, 19, 29 (with modifications).

Obr. 2. Wrocław - Ostrów Tumski. Sonda I: a - plan warstwy E; b - plan warstwy E1; c - plan warstwy E2. Podle Kaźmierczyk et al. 1976, Fig. 16, 19, 29 (s úpravami).



**Fig. 3.** Wrocław – Ostrów Tumski. Trench I: a – plan of the layer F; b – plan of the layer F1; c – plan of the layer G. According to Kaźmierczyk et al. 1976, Fig. 1; Kaźmierczyk et al. 1977, Fig. 24, 28 (with modifications). Legend see Fig. 2.  
**Obr. 3.** Wrocław – Ostrów Tumski. Sonda I: a – plán vrstvy F; b – plán vrstvy F1; c – plán vrstvy G. Podle Kaźmierczyk et al. 1976, Fig. 1; Kaźmierczyk et al. 1977, Fig. 24, 28 (s úpravami). Legenda viz obr. 2.

Trench	Inv. no.	Layer	Plot	Feature	Item	Chronology	Material
I	27n/72	D	G		weight?	1 <sup>st</sup> half of 13 <sup>th</sup> c.	lead
I	46a/72	D	e-g-h		weight	1 <sup>st</sup> half of 13 <sup>th</sup> c.	iron in bronze coat
I	63d/72	E	e, g		weight	2 <sup>nd</sup> half of 12 <sup>th</sup> c.	iron
I	35b/74	E	I,IV,VII	between the buildings Nos. 5 and 6	weight	2 <sup>nd</sup> half of 12 <sup>th</sup> c.	iron in bronze coat
I	35b/74	E	I,IV,VII	between the buildings Nos. 5 and 6	weight	2 <sup>nd</sup> half of 12 <sup>th</sup> c.	iron in bronze coat
I	11a/74	E	18		balance's arm	2 <sup>nd</sup> half of 12 <sup>th</sup> c.	bronze
I	114b/74	F?	37, 41		weight	4 <sup>th</sup> quarter of 11 <sup>th</sup> – 1 <sup>st</sup> quarter of 12 <sup>th</sup> c.	lead
I	19c/75	F1	19, 20, 23, 24		weight	4 <sup>th</sup> quarter of 11 <sup>th</sup> c.	iron
I	119o/75	G1	3		weight	3 <sup>rd</sup> quarter of 11 <sup>th</sup> c.	iron
I	9b/76	H1	45		weight	3 <sup>rd</sup> quarter of 11 <sup>th</sup> c.	lead
I	75h/76	K	19	between the buildings Nos. 2 and 3	weight	2 <sup>nd</sup> quarter of 11 <sup>th</sup> c.	iron in bronze coat
I	49j/77	M		feature No. 1	weight	2 <sup>nd</sup> quarter of 11 <sup>th</sup> c.	iron in bronze coat
II	147d/78	N		building No. 6-2-4	balance's chain	2 <sup>nd</sup> quarter of 11 <sup>th</sup> c.	iron
II	147d/78	N		building No. 6-2-4	basket from the balance	2 <sup>nd</sup> quarter of 11 <sup>th</sup> c.	bronze
I	179i/77	R	41-42		weight	4 <sup>th</sup> quarter of 10 <sup>th</sup> – 1 <sup>st</sup> quarter of 11 <sup>th</sup> c.	?
III	124p/83	B2		building No. 2, barnyard No. 4	hook from the balance?	4 <sup>th</sup> quarter of 12 <sup>th</sup> c.	iron + Zn, Pb, Ni
III	50/f/83	B4		building No. 2, barnyard No. 1	weight	half of 12 c.	iron in bronze coat
III	50f/83	B4		building No. 2,2a, barnyard No. 1	weight	half of 12 c.	lead
III	103d/84	B8		building No. 1, barnyard No. 3	balance	4 <sup>th</sup> quarter of 11 <sup>th</sup> c.	iron
III	103d/84	B8		building No. 1, barnyard No. 3	weight	4 <sup>th</sup> quarter of 11 <sup>th</sup> c.	iron
III	103d/84	B8		building No. 1, barnyard No. 3	weight	4 <sup>th</sup> quarter of 11 <sup>th</sup> c.	iron
III	21i/84	B9		square, barnyard No. 1	weight	4 <sup>th</sup> quarter of 11 <sup>th</sup> c.	iron in bronze coat
III	318a/85	C2			weight	3 <sup>rd</sup> quarter of 11 <sup>th</sup> c.	iron in bronze coat
III	94b/85	C3	32	building No. 2	basket from the balance	3 <sup>rd</sup> quarter of 11 <sup>th</sup> c.	zinc and copper
III	94b/85	C3	32	building No. 2	basket from the balance	3 <sup>rd</sup> quarter of 11 <sup>th</sup> c.	zinc and copper
III	205b/85	C3	57		weight	3 <sup>rd</sup> quarter of 11 <sup>th</sup> c.	lead
III	115e/85	D1		building No. 3	weight	half of 11 c.	iron in bronze coat
III	156c/85	E1	46, 55, 56		weight	2 <sup>nd</sup> quarter of 11 <sup>th</sup> c.	lead in bronze coat
III	214a/85	E2		building No. 2	weight? spindle whorl?	2 <sup>nd</sup> quarter of 11 <sup>th</sup> c.	lead
III	246b/85	E5		building No. 2	weight	2 <sup>nd</sup> quarter of 11 <sup>th</sup> c.	lead with a bronze thread
III	317a/85	F1			weight?	4 <sup>th</sup> quarter of 10 <sup>th</sup> – 1 <sup>st</sup> quarter of 11 <sup>th</sup> c.	lead
III	10 l/86	E1-5			weight	1 <sup>st</sup> -2 <sup>nd</sup> quarter of 11 <sup>th</sup> c.	lead

**Table 1.** Finds associated with trade and exchange from Ostrów Tumski in Wrocław.

**Tabulka 1.** Nálezy spojené s obchodem a směnou z lokality Ostrów Tumski ve Wrocławí.

of crucibles (Kaźmierczyk et al. 1976, 181, 198, 206; 1977, 217–221, 227, 230, 233–234). In contrast to finished jewellery products, these finds are clearly grouped in houses surrounding empty spaces. Their discoverers associated them with the functioning of the ‘glass-smith-goldsmith’s workshop’ next to the exchange place (Kaźmierczyk et al. 1976, 179, 190–191, 211). The picture of the existence of such workshops in the light of newer research cannot be uncritically accepted. As it has been pointed out several times in Wrocław and in other strongholds, there were no glass workshops strictly speaking, but rather small, cottage industry workshops producing finished products from semi-products – glass sticks and rods (Moździoch 1990, 127–129; Pankiewicz et al. 2017, 40–44, 67–69; Pankiewicz, Siemianowska 2018). The production of metal jewellery on the spot seems probable, but this problem requires further analyses.<sup>4</sup> The concentration of lead, the presence of crucibles associated with melting this and other non-ferrous metals (Pankiewicz et al. 2018, 338–339) as well as individual touchstones<sup>5</sup> with traces of lead, copper, tin and zinc (Ježek et al. 2015, 61–63, Plate 1) confirm the presence of non-ferrous metallurgy instead. Several times attention was also drawn to the connection between lead concentration sites, in the form of raw or semi-raw material, and the accumulation of finds associated with trade and exchange (Cofita-Broniewska 1962, 295–297; Wachowski 1974, 193–194; 1984, 81; Młynarska-Kaletynowa 1992, 292; Bodnar et al. 2007; Rozmus 2014, 151–224; Ježek et al. 2015, 70–73; Pankiewicz 2015, 471–472; Pankiewicz et al. 2018, 339–340).

This space could be associated not only with trade, but also with other manifestations of activity of the stronghold’s inhabitants. Within both empty squares and their immediate surroundings, numerous items were also found showing that it was here that spare time was spent – chess pieces, and stone and wooden game balls (Fig. 2–3; Kaźmierczyk et al. 1976, 185, 207, 216; 1977, 223, 224, 234). Attention is also drawn to the accumulation of writing accessories in the vicinity of the ‘square’. Two metal and one bone styluses, as well as an antler inkwell and an object defined as a book mount<sup>6</sup> were discovered in individual layers (Kaźmierczyk et al. 1976, 181, 208, Fig. 24; 1977, 220, Fig. 11s; Jaworski 1990, 46–48, Plate VIII: g, h). The discoverers linked these objects with the functioning of the Cathedral school (?) (Kaźmierczyk et al. 1976, 192), but that was supposed to have existed in the second half of the 13<sup>th</sup> century, while the aforementioned artefacts were found in older layers. In addition, the use of writing utensils for making commercial transactions and their concentration in the places of trade is sometimes pointed out (Paszkiwicz, Wachowski 2018, 537–538).

The second place within the Wrocław stronghold where an accumulation of accessories related to trade was found is about 50 m to the north-west of the square

in question. The place is building No. 1 from home-stead No. 3, layers B8–B9, dating to the fourth quarter of the 11<sup>th</sup> century. Its construction was described by the discoverers as very solid. It was placed on double rows of thick ground beams, arranged on a specially prepared levelling layer made of clay. The building was erected in log construction with floors made of laths. Together with the annex, it had a surface of 28 m<sup>2</sup>, which is a significant size by Ostrów Tumski standards (Kaźmierczyk 1993, 125–132, Fig. 72–75; on the subject of size standards pp. 41–42). Apart from the construction itself, the furnishings of this building and its immediate surroundings seem very interesting. Under the floor of the house, fragments of a balance and three iron weights were discovered (two in bronze coats). Another iron and six lead<sup>7</sup> weights were discovered near the building. In addition, a tin-and-lead finger ring and a decorated miniature lead axe were found in the building, while in its immediate vicinity pine sticks with ‘silver’ sheet considered to be Byzantine imports and decorative mounts were unearthed. A significant concentration of lead raw material was also discovered near the building (Kaźmierczyk 1993, 111–116, 131–133, Fig. 62, 63, 67, 78).<sup>8</sup> Such an extraordinary assemblage of artefacts combined with the exceptionally solid construction of the building gave the discoverers the idea that perhaps there had been an inn there, and that the innkeeper himself was also a merchant (Kaźmierczyk 1993, 132).

Such an interpretation finds a kind of foundation in discoveries from other sites. With respect to the early medieval stronghold in Opole, one of the structures in the building complex (buildings 3B, 6B, 9B) was identified as an inn or house of a merchant at the square. Noteworthy is the accumulation of both items associated with trade and exchange (individual coins and weights as well as balance fragments), jewellery made of glass (very numerous glass beads), precious and decorative stones, non-ferrous metals as well as objects related to entertainment and leisure activities (*hnefatafl* game pieces, wooden and clay balls, elements of musical instruments – Siemianowska 2017; Siemianowska in press, Table 1). Although individual artefacts differ from those discovered within the empty squares in the Wrocław stronghold, the assemblage of these objects is actually identical. The time of functioning of both places hypothetically associated with the exchange is also similar. The ‘marketplace’ in the Wrocław stronghold began to function from the fourth quarter of the 11<sup>th</sup> century, developing successfully in the 12<sup>th</sup> century, while the settlement level with the complex around the Opole ‘inn’ is dated to the 11<sup>th</sup>/12<sup>th</sup> century or the first half of the 12<sup>th</sup> century (see fragment above and Siemianowska 2017, 151). The duration of use of both squares does not differ significantly from the chronology of the building described as an inn on Wrocław’s Ostrów Tumski (see fragment above).

## Places of goods exchange or zones of goods exchange

In light of the cited examples, it would be worth considering where the trade could have taken place within the important stronghold centres of the Piast state – in separate buildings or within small squares? Finds from Wrocław and Opole indicate both possibilities. However, one must consider a third option – there did not have to be special buildings nor squares. It seems that there could have been whole zones somehow associated with trade and exchange, including some houses as well as elements of empty space. In this case, buildings saturated with items related to trade and exchange, as well as all kinds of imports, could indeed be regarded as seats of merchants living in strongholds.

The existence of such zones could be indicated by the distribution of accessories related to exchange and trade within squares, streets and some buildings in the Wrocław stronghold (see fragment above). All these objects are concentrated in the eastern part of the stronghold, to the north of the Cathedral<sup>9</sup> (Fig. 1). An analogous situation was recorded in the Opole stronghold. Here, merchant accessories also occurred within some buildings and small squares (see fragment above), but these finds clearly concentrate within one sector. Beyond this zone, they appeared only occasionally and were rather found in houses (see Wachowski 1974, 193–194; 1984, 75–82, Fig. 52).

Similar regularities were found within other important centres of the Piast state, where the concentration zones of merchant accessories and sometimes coins accompanying them were also distinguished. On Ostrów Lednicki such a cluster was found near the Poznań bridge as well as the Gniezno bridge (Tabaka 2005; 2013, 26–28).

## Places of goods exchange or places of tribute collection – the possibilities of identification and links with other manifestations of economic activity

However, not in all cases is the concentration of coins and weights regarded as a manifestation of activity associated with trade. A clear accumulation of this type of object was also found within the *castrum minus* in Bytom Odrzański. It was even clearer when contrasted with the second part of the stronghold – *castrum maius*, where such finds were very rare. In this case, however, this is not associated with the functioning of the marketplace in this space, but with the collection of tributes (Moździoch 2002, 182–184, Fig. 160; Moździoch, Suchodolski 2006, 366–370). Suggestions of this type were also put forward in relation to other places located within central strongholds. In the case

of the Opole stronghold, it is not excluded that the seat of not just a merchant, but of an official dealing with the collection of tributes from the local population, was house 69B distinguished by exceptional equipment (Siemianowska 2017, 156). It is also worth noting that at the back of the already described house, interpreted as an inn or a merchant's house on Wrocław Ostrów Tumski, was located a grain storage where broad beans, peas, wheat, barley and rye were stored (see fragment above and Kaźmierczyk 1993, 133, Fig. 64).

The question arises whether it is possible to distinguish between places associated with trade and exchanges and places associated with the collection of tributes. It seems that in some cases such an identification is possible. Symptomatic is the fact that in almost all places with the occurrence of weights and sometimes also coins, an accumulation of various types of lead sinkers was recorded as well<sup>10</sup> (see fragment above, also: Tabaka 2005, Bodnar et al., 2007, Rozmus 2014, 215–220). The relationship between the presence of merchant accessories and lead weights with places of non-ferrous metal processing was also emphasised, and it was sometimes suggested that the weights could have been used in goldsmith's workshops, e.g., for weighing raw materials (e.g., Cofta-Broniewska 1962, 295–297; Wachowski 1974, 193–194; 1984, 81; Leciejewicz 1983, 282; Piekalski 1999, 94–129; Rozmus, Bodnar 2004b, 31–49; Bodnar et al. 2007, 8–33; Rozmus 2014, 151–224; Sawicki 2018, 361).

Not in all centres was this pattern repeated. In Bytom Odrzański, traces of non-ferrous metallurgy were rare and they were found in trench XLIII located within the *castrum maius*. In this part of the site, there was also a significantly higher frequency of temple rings (Moździoch 2002, 155–158, Fig. 38), very often recorded at the 'marketplace' in Wrocław (see fragment above). As mentioned, the weights and coins were grouped in the area of the Bytom *castrum minus*, which was to support the thesis that tributes were collected there. In light of comparative analysis with other centres, *castrum minus* indeed appears to be a place not associated with trade.

## The specificity of time or the specificity of place

As numerous examples from the important centres of the Piast state indicate, merchant accessories – especially weights – occur most frequently in layers dating to the end of the 11<sup>th</sup> and the entire 12<sup>th</sup> century (e.g., Wachowski 1974, 193, 200; 1984, 81; Leciejewicz 1983, 238; Moździoch 1990, 157; Kowalska 2011, 270–271). The same is true when it comes to the frequency of occurrence of jewellery. Glass jewellery items (finger rings, beads) as well as metal ones (especially the less sophisticated bronze and lead temple

rings) appear mainly in this period (e.g. Moździoch 1990, 157; Pankiewicz 2015, 471; Pankiewicz et al. 2017, 43–44, Graphs 2–3). The time from the end of the 11<sup>th</sup> century to the early 13<sup>th</sup> century is also the peak of the occurrence of conspicuous concentrations of lead, occurring both in the form of raw material, semi-finished products and production waste as well as finished products (e.g., Bodnar et al. 2007, 12; Rozmus 2014, 88–89; Pankiewicz 2015, 471–472). The functioning of marketplaces within strongholds are usually located in similar chronological frames (Wrocław Ostrów Tumski – see fragment above; Opole Ostrówek – see fragment above; Ostrów Lednicki – turn of the 10<sup>th</sup>/11<sup>th</sup> century till the 13<sup>th</sup> century – Tabaka 2005; 2013, 26–28). This chronological convergence may lead to the conclusion that the accumulation of objects related to trade is the result of the increased frequency of their occurrence during this period and not a specific function of the place. The argument for the fact that we are dealing with zones of exchange is the fact that these finds usually concentrate in one area.

### **Functioning of marketplaces in strongholds in the context of the circulation of bullion and the organisation of space associated with trade**

As mentioned above, the functioning of most of the ‘marketplaces’ in strongholds has been dated to the end of the 11<sup>th</sup> century and the entire 12<sup>th</sup> century. Earlier merchant accessories also occur, but they are less frequent (see fragment above, also Leciejewicz 1983, 238; Wachowski 1974, 193; 1984, 75–81). It is also significant that in the Wrocław stronghold in layers dating from the end of the 10<sup>th</sup> to the end of the 11<sup>th</sup> century, items associated with trade occur mainly in houses. As late as from the end of the 11<sup>th</sup> century, they appear more frequently within streets and squares. This phenomenon may be related to the transformation of the exchange and shaping of a different approach to trade issues. It is no coincidence that this transformation takes place in a period when the hack-silver hoards are slowly disappearing. The frequency of locally minted but not portioned coins increases instead. It is characteristic that although these hoards concentrate around the most important administrative and political centres of the Piast state, they are not (hardly ever) found within strongholds (Wachowski 1974, 200; Moździoch 1990, 148–155; Butent-Stefaniak, Malarczyk 2009, 229–237). The change in the manner of trading in silver bullion could be one of the factors that caused a trade revival within the strongholds themselves<sup>11</sup>. Another reason for the formation of marketplaces in the 11<sup>th</sup>–12<sup>th</sup> centuries could be the start of larger scale extraction of lead and accompanying it silver in the borderland between Silesia and Lesser Poland (Bodnar et al. 2007, 12; Rozmus 2014, 88–89). Probably not by accident, finds of coins and

weights are often accompanied by various lead ‘sinkers’, and the exchange zones sometimes overlap with non-ferrous metal processing zones.

The reason for the development of places associated with trade may also be changes in the structure of the population living in centres of the Piast state at the end of the 11<sup>th</sup> century. In Wrocław, the first period of the stronghold’s existence (from the 1030s or mid-11<sup>th</sup> century) is associated with the stay of the stronghold’s military crew (Moździoch 2000, 337). In the further stages of the development of the Wrocław centre, a change in the population structure probably occurred.

The period from the first half of the 12<sup>th</sup> century to the end of the 12<sup>th</sup>–beginning of the 13<sup>th</sup> century is the time when in the Wrocław stronghold more numerous finds of coins and weights as well as various imports occur, largely from the area of Rus’ (Moździoch 1990, 142–147; 2000, 337–338; Wachowski 2001, 170, Fig. 18; Lisowska 2013, 136–138; Pankiewicz et al. 2014; 2017, 61–65). The development of long-distance exchange was certainly also an element stimulating local market.

But can places in strongholds which can be hypothetically linked with trade be called marketplaces? There are many indications that in the determination of space within the strongholds the term is at least ‘overstated’. Despite the fact that merchant accessories in the period from the end of the 11<sup>th</sup> century to the end of the 12<sup>th</sup> century concentrate within empty squares and streets, these spaces are relatively narrow. In not one of the strongholds was no larger square which could have served as an exchange found.

The time of designating specific places of exchange (fairs, inns) can be referred to around the mid-12<sup>th</sup> century, although, as it is emphasised, many of them may be related to the older tradition. It is believed that such a marketplace for Wrocław’s Ołbin could already exist before 1149 (Trawkowski 2005a, 225–241; 2005b, 210–220; Młynarska-Kaletynowa 1986, 39–44; Piekalski 2014, 51). It is assumed that the second place connected with trade within the 12<sup>th</sup>-century Wrocław agglomeration was the settlement on the left bank of the Odra River located along today’s Piaszkowa Street from crossing of the river to the church of St. Adalbert (Młynarska-Kaletynowa 1986, 44–51; 1991, 14–15; Piekalski 1999, 119–121; 2014, 44–45). Although the existence of a place related to trade is not confirmed for this area in written sources before the 13<sup>th</sup> century, the craft-commercial character of the settlement is not negated (Piekalski 2014, 44–45; Marcinkiewicz, Piekalski 2018, 135–139).

Similar development trends are also visible in other proto-urban centers in Polish lands. Marketplaces were usually located outside of the stronghold, within suburbium (Kraków, Poznań) or further on the



other side of the river (Głogów, Poznań, Kalisz) or behind another obstacle (Gniezno, Poznań, Płock). Just like in Wrocław, in some centers several places potentially related to trade and exchange can be pointed (Gniezno, Poznań). The functioning of these places is mainly dated to the 11<sup>th</sup> – half of 13<sup>th</sup> century (detailed discussion of the problem with the literature Piekalski 1999, 116–126).

Another common feature of the so-called central places of the Piast state is the significant role of trade in the development of these strongholds. The successful development of an individual centre was often determined by its location on a long distance trade route, or even at the intersection of routes, e.g. at a convenient crossing of the river (e.g. Poznań, Wrocław, see Młynarska-Kaletynowa 1986, 17–19; Moździoch 1990, 158–160, 164–165, 184–185; 2000, 213–214; Kóčka-Krenz et al. 2004, 160; Kara 2016, 76–77, 97–98, 101–108; Makohonienko, Kara 2016, 17–19). The role of trade in the process of formation of the elites within the Piast or Přemyslid states was also emphasized many times. This was reflected primarily in the presence of imports, proving the maintenance of comprehensive trade contacts with neighbouring lands, as well as more distant places (Moździoch 1990, 142–147; Kóčka-Krenz et al. 2004, 141–142; Kara 2016, 76–77, 97–98, 101–108).

A similar situation can be observed in centers in Bohemia and Moravia, although the early origin and the special rank of some strongholds does not allow simple comparisons here. The early (10<sup>th</sup> century) existence of a marketplace in suburbium in Prague (Malá Strana?) or on the other side of the Vltava River in the area of today's Old Town is reconstructed on the basis of Ibrahim ibn Yaqub account. However it is not excluded, that settlements on both sides of the river were named as suburbium (Młynarska-Kaletynowa 1992, 289–290; Piekalski 1999, 110–116; Piekalski 2014, 28–31; Hrdlička 2000, 191–198; Goliński 2018, 23–26). So far, within the Prague settlement agglomeration, no trading places have been identified on the basis of archaeological record. The finds provided only numerous (especially in the area of Malá Strana) traces of metallurgy, mainly iron metallurgy (e.g. Podliska, Zavřel 2006; Čiháková, Havrda 2008, 215–217; Havrda, Podliska 2011; Piekalski 2014, 31–36; Goliński 2018, 19–20, 28–31).

The alleged place of exchange goods in Olomouc also has an early origin. Its existence seems to indicate the presence of over 20 coins and finds of foreign provenance, which would be connected long-distance trade. The marketplace is located at today's Pekařská Street in a large suburbium, within a later medieval town. It would exist within the 'craft-trade' settlement in the 10<sup>th</sup> century and the following centuries. In addition to trading, residents of the settlement would

also deal with iron and non-ferrous metallurgy (Bláha 1984; 1985; 2001, 342–346, Fig. 1, 4).

In the case of the Brno settlement agglomeration, it is assumed that the market place existed in the southern part of a later medieval town in today's Zelný trh square. This can be proved by the meaningful name – *Antiquum forum* – mentioned in the 13<sup>th</sup> century that most probably refers to this place. There were traces of settlement near the square dated at least to the 12<sup>th</sup> century, as well as findings related to the processing of non-ferrous metals – silver and copper, while within the square itself, no remains of early medieval buildings were found, only singular fragments of vessels from the 12<sup>th</sup> (?) century. It may be an indication that this area was undeveloped and the Early Middle Ages served as the marketplace (Procházka 2000, 39–40, 133–134; 2011, 179; 2014, 245; Procházka et al. 2011, 534–540; Kolařík et al. 2016, 256–259).

The location of trade-related places in Bohemia and Moravia is therefore based mainly on written sources. Archaeological sources are less helpful because of the occasional occurrence of balances and weights in these areas. The majority of those finds are dated to the 13<sup>th</sup> and 14<sup>th</sup> centuries (Ježek 2002). However, in recent years, thanks to research using metal detectors, this type of finding has also increased. Spectacular finds were provided by research in Kostice on southern Moravia. About 150 coins and their fragments were discovered there, as well as a fragment of the balance and 9 iron weights in bronze coats. These findings were accompanied by numerous pieces of jewellery – over 40 brass and silver earrings. Also significant is the occurrence of exceptionally many findings related to non-ferrous metallurgy on the settlement. More than 800 units of lead in the form of discs with a hole, 'spindle whorls', cone-shaped rolls and individual bars, as well as amorphous fragments were found during the research. Single coins were minted in the 2<sup>nd</sup> half of the 10<sup>th</sup> century, but most of the finds are dated to the 11<sup>th</sup> or the beginning of the 12<sup>th</sup> century. It is believed that at that time in Kostice there was a marketplace or 'customs house', located on the north-south route (Macháček, Měchura 2013, 278–281, Fig. 1–12). Similar, though much more modest finds come from Roudnice near Hradec Králové, where 4 iron weights in bronze coats, 2 coins and numerous lead items (discs and cone-shaped 'weights', 'spindle whorls', and bars) were discovered. Most of them are dated to the 11<sup>th</sup> century. It is assumed that, like in Kostice, it was a place located on the north-south trade route (Bláha et al. 2013). In the case of other places, their identification on the basis of archaeological finds can be very difficult.

An indirect indications for the location of marketplaces may be the discovery of traces of metallurgy, which very often accompanied the places associated

with the exchange of goods. It is believed that in some cases this could have been connected with metal trade (see above, also Piekalski 1999, 97, 106–107, 118–119, 121, 123, 126–127). However, caution should be exercised when attempting to automatically connect metalworking sites with trade<sup>12</sup>. One should also take into account the other dynamics of the development of the main stronghold centers, which in both Bohemian and Moravian regions as well as in the lands west of the Elbe River are often older in origin than centers in the Polish land (see Piekalski 1999, 94–129).

The abovementioned examples and observations of historians and archaeologists confirm that for the period from the 12<sup>th</sup> century, places of exchange were located mainly within settlement complexes, but rather outside fortified areas (Moździoch 1990, 160–164, Młynarska-Kaletynowa 1991, 14–15; Piekalski 1999, 94–129; 2014, 62). This is indicated by source references concerning specific places related to trade as well as local names e.g. Targowisko, Śródka (Młynarska-Kaletynowa 1991, 14–15; Piekalski 1999, 94–129; Moździoch 2000, 202–204). It was emphasised that within the area enclosed by ramparts and tightly built-up there was no space for a wider exchange. The organisation of markets inside the strongholds was also hindered by complicated ownership relations (Trawkowski 2005a, 237, 244–245). Usually marketplaces were located at a distance of about 10–15 km from each other. They were places arbitrarily organised by ducal authority and subject to the ducal regale (Moździoch 1990, 160–164; 2000, 203).

Therefore, it would exclude – both for legal reasons and the issue of organisation of space – the possibility of presence of an organised exchange place at Wrocław Ostrów Tumski.

So how to explain the concentration of items associated with the exchange in strongholds in Wrocław, Opole and other centres? Probably the trade-related zones that were identified actually fulfilled this function, but rather temporarily. Regarding the Wrocław stronghold, the determination of such a zone may be related to the proximity of the Cathedral. The whole area of concentration of merchant accessories within this centre is located within a radius of 100 m of the Cathedral church, and it has been repeatedly stressed that trade took place near churches (Moździoch 1990, 162; Młynarska-Kaletynowa 1992, 290; Moździoch, Suchodolski 2006, 379). Fairs could also have taken place seasonally and been associated with specific Christian holidays (Młynarska-Kaletynowa 1992, 290–291). This seasonality is, however, highly elusive based on archaeological sources. It is worth noting, however, that in the case of organising a fair on individual days of the year, we do not have to expect that due to their functioning, a specific space in the form of a larger square was permanently dedicated to this. If such fairs were also

held in strongholds, where a perpetual problem was the lack of space, it is almost unlikely.

The apparent discrepancy between the existence in the 12<sup>th</sup> century of places of organised trade and commercial activity in strongholds can also be explained by the slightly different time of their functioning. Admittedly, as mentioned earlier, the origins of organised trade places were already sought in the 11<sup>th</sup> century, but they were conclusively evidenced from about the mid-12<sup>th</sup> century. Therefore, it cannot be ruled out that places of exchange located within strongholds themselves constituted a kind of ‘intermediate link’ between the times when the strongholds were inhabited mainly by armed personnel and the times of the formation of organised – in the territorial and legal sense, marketplaces adjacent to strongholds, to the development of specific trade zones in the late medieval town.

## Conclusions

The accumulation of objects associated with trade in early medieval strongholds within layers dating from the end of the 11<sup>th</sup> century to the end of the 12<sup>th</sup> century is probably linked to the existence of some kind of exchange zones within the main centres of the Piast state. The earlier period (up to the end of the 11<sup>th</sup> century) is characterised by the presence of this type of accessory almost exclusively within houses, as the property of those who lived in them. The appearance of artefacts associated with trade and exchange within streets, small squares and alleged inns at the end of the 11<sup>th</sup> century may be associated both with social transformations in the most important centres of the Piast state as well as with serious changes in the circulation of goods and bullion.

Within the tightly built-up strongholds, the existence of a permanent ‘marketplace’ is extremely unlikely. The exchange could have had an ad hoc or seasonal character. Places related to possible exchange can be identified by means of the concentration of artefacts associated with trade (elements of balances, weights, coins), but also items which were perhaps sold, e.g., elements of metal and glass jewellery. In the case of buildings – alleged inns – attention is drawn in turn to the concentration of imports and items showing the high social status of their inhabitants/users. Another determinant of such places (especially within squares and streets) is the accumulation of artefacts associated with spare time – chess pieces, game balls, etc. The function of the ‘square’ was not only the exchange of goods. It was also a place for spending spare time and probably also a place for social gatherings (Młynarska-Kaletynowa 1992). After all, there is not really any discrepancy between the existence of organised places of trade in the 12<sup>th</sup> and the 13<sup>th</sup> centuries and small, stronghold exchange zones, which are distinguished already at the end of the 11<sup>th</sup> century.

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## Notes

- 1 Due to differences in the time of functioning, and above all, the functions of coastal centres, they will not be taken into account in this study.
- 2 The only exception is the cluster of a dozen (according to other data over 20) coins from the times of Bolesław the Tall (the 12<sup>th</sup>/the 13<sup>th</sup> century) discovered in trench IIIA/2 at Kania Street (Kaźmierczyk 1995, 146, Fig. 118; Kubiak 1998, No. 166). The remaining dozen research trenches on Ostrów Tumski in Wrocław, conducted from 1949 till today, provided 11 other early medieval coins (including 10 published (see Kubiak 1998, No. 166; Butent-Stefaniak, Malarczyk 2009, No. 80; Paszkiewicz 2015), in these works further references) Such a small number of early medieval coins does not result from the method of conducting excavations, because in their course a large number of small glass beads, metal needles or fish scales, etc., was discovered. Moreover, the collection of post-medieval coins from this site is much more numerous.
- 3 Unfortunately, I do not have full statistical data on research carried out on behalf of the Institute of Archaeology and Ethnology of the Polish Academy of Sciences.
- 4 It would be necessary in this case to compare the composition of raw material and lead lumps and wires with finished products.
- 5 It can be assumed that there were many more stone items with this function. In layers associated with the functioning of the 'marketplace', especially in places related to the processing of non-ferrous metals, an over-representation of 'whetstones' was recorded (see Kaźmierczyk et al. 1976, 182, 188, 203–204, 206, 210, 216, 217; Kaźmierczyk et al. 1977, 215–224, 227, 230).
- 6 The function of the latter, however, may raise doubts.
- 7 Unfortunately, it is impossible to say whether the aforementioned lead objects are actually weights or popular oval sinkers with a hole. These artefacts have gone missing. Their documentation has not been preserved either.
- 8 There was also a large accumulation of bone and ceramics within the building and in its immediate vicinity. According to Sylwia Siemianowska (in press), such finds can also be an indicator of an inn or other places related to meetings, trade and entertainment. However, significant amounts of ceramics and bones are characteristic of most large buildings from Ostrów Tumski in Wrocław.
- 9 This area would include trenches I-II/72-78, III, or possibly IIIA/2. It cannot be ruled out that the area where trench VI was established was also included in the zone. Although based on the publications, one cannot assume the presence of weights or

balance elements. In layers II-V of this trench, however, there was an accumulation of artefacts analogous to those discovered within the 'square' (three coins, glass and metal finger rings and other jewellery items, lead weights, lead raw material, etc. - see Kóčka, Ostrowska 1956, 92-93, Fig. 11; Ostrowska 1959, 155–156, Fig. 3).

- 10 Based on a spatial analysis of the finds from Opole Ostrówek, Krzysztof Wachowski (1974, 193, Table 13), found a discrepancy in the occurrence of some types of lead sinkers. This, however, does not exclude their appearance with objects which can certainly be qualified as merchant weights.
- 11 This vision is not matched by the, already many times emphasised, decline in the number of 12<sup>th</sup>-century deposits, as well as the presence of a negligible number of coins from that period in graves and within settlement complexes (Moździuch, Suchodolski 2006, 378–379; Butent-Stefaniak, Malarczyk 2009, 236). This coin shortage, however, does not fully translate into the representation of finds from Wrocław Ostrów Tumski. It is worth noting that the sole more numerous collection of coins from the site – the 'deposit' of a dozen or maybe 20 coins, dates to the end of the 12<sup>th</sup> or the beginning of the 13<sup>th</sup> century (times of Bolesław the Tall - Kaźmierczyk 1995, 146, Fig. 118; Kubiak 1998, No. 166). Currently it is also proposed to 'rejuvenate' some of the issues previously attributed to Bolesław the Bold to the 11<sup>th</sup> and 12<sup>th</sup> centuries (Nakielski 2012).
- 12 It should be noted whether in all cases these activities overlap in chronological order. It is also important whether it concerns non-ferrous or ferrous metallurgy, which could have been dealt with by non-free people (e.g. Goliński 2018, 20).

## References

- Bláha, J. 1984:** Časňeslovanská osada v Olomouci a počátky řemeslnicko-kupeckého podhradí. *Archaeologia historica* 9, 133–146.
- Bláha, J. 1985:** Několik poznámek ke genezi a významu raně středověké Olomouce. *Archaeologia historica* 10, 143–152.
- Bláha, J. 2001:** Olomouc im 10.–11. Jahrhundert. Topographie und die Frage der Kontinuität eines frühmittelalterlichen Zentrums. In: P. Sommer (Hrsg.): *Boleslav II. Der tschechische Staat um das Jahr 1000*. Prag: Filosofia, 325–361.
- Bláha, R., Hejhal, P., Skala, J. 2013:** Raně středověké olovené artefakty z katastru Roudnice (okr. Hradec Králové). In: P. Boroň (red.): *Argenti fossores et alii*. Wrocław: Wydawnictwo Chronikon, 289–305.
- Bodnar, R., Rozmus, D., Szmoniewski, B. Sz. 2007:** Wczesnośredniowieczne odważniki i ciężarki ołowiane z Dąbrowy Górniczej-Łośnia i ich rola we wczesnośredniowiecznej gospodarce. In: D. Rozmus, B. Sz. Szmoniewski (red): *Zeszyty Łosieńskie 2*. Kraków: Księgarnia Akademicka.

- Butent-Stefaniak, B., Malarczyk, D. 2009:** *Obieg pieniężny na Śląsku we wczesnym średniowieczu (od X do połowy XII wieku)*. Wrocław: Zakład Narodowy im. Ossolińskich.
- Čiháková, J., Havrda, J. 2008:** Malá Strana v raném středověku. Stav výzkumu a rekapitulace poznání. *Archeologické rozhledy* LX(2), 187–228.
- Cofta-Broniewska, A. 1962:** Z zagadnień obróbki metali nieżelaznych. *Slavia Antiqua* 9, 273–299.
- Goliński, M. 2018:** *Dzieje miast praskich do początku XV wieku*. Wrocław: Księgarnia Akademicka.
- Havrda, J., Podliska, J. 2011:** Hutnictví kovů v podhradí Pražského hradu. *Forum urbes medii aevi* VI, 68–94.
- Hołubowicz, W. 1956:** *Opole w wiekach X–XII*. Katowice: Śląsk.
- Hrdlička, L. 2000:** Centrum raně středověké Prahy. In: J. Piekalski, K. Wachowski (red.): *Średniowieczny Śląsk i Czechy. Centrum średniowiecznego miasta. Wrocław a Europa Środkowa*. Wrocław: Instytut Archeologii Uniwersytetu Wrocławskiego, 191–214.
- Jaworski, K. 1990:** *Wyroby z kości i poroża w kulturze wczesnośredniowiecznego Ostrowa Tumskiego we Wrocławiu*. Wrocław: Volumen.
- Ježek, M. 2002:** Odkrycia wag składanych w krajach czeskich. In: C. Buško, J. Klápště, L. Leciejewicz, S. Moździoch (red.): *Civitas et villa. Miasto i wieś w średniowiecznej Europie środkowej*. Wrocław, Praha: Instytut Archeologii i Etnologii PAN, Archeologický ústav AV ČR, Praha, 453–456.
- Ježek, M., Pankiewicz, A., Zavřel, J. 2015:** Touchstones from Ostrów Tumski in Wrocław. *Archaeologia Polona* 48, 59–78.
- Kara, M. 2016:** Relikty osadnictwa ze starszych faz wczesnego średniowiecza oraz przełomu faz starszych i młodszych (od około VI/VII do pierwszej połowy XI w.) z obszaru obecnej tzw. małej aglomeracji miasta Poznania. Próba zarysu przemian osadniczych według nowszych ustaleń archeologii. In: M. Kara, M. Makohonienko, A. Michałowski (red.): *Przemiany osadnictwa i środowiska przyrodniczego Poznania i okolic od schyłku starożytności do lokacji miasta*. Poznań: Bogucki Wydawnictwo Naukowe, 71–132.
- Kaźmierczyk, J. 1993:** *Ku początkom Wrocławia. Cz. 2. Warsztat budowlany i kultura mieszkalna Ostrowa Tumskiego od połowy XI do połowy XIII wieku*. Wrocław: Volumen.
- Kaźmierczyk, J. 1995:** *Ku początkom Wrocławia. Cz. 3. Gród na Ostrowie Tumskim w X–XIII wieku*. Wrocław: Sudety.
- Kaźmierczyk, J., Kramarek, J., Lasota, C. 1976:** Badania na Ostrowie Tumskim we Wrocławiu w 1974 roku. *Silesia Antiqua* 18, 177–225.
- Kaźmierczyk, J., Kramarek, J., Lasota, C. 1977:** Badania na Ostrowie Tumskim we Wrocławiu w 1975 roku. *Silesia Antiqua* 19, 181–240.
- Kóčka, W., Ostrowska, E. 1956:** Wyniki prac wykopalskich we Wrocławiu na Ostrowie Tumskim w latach 1953 i 1954. *Sprawozdania Archeologiczne* 2, 85–95.
- Kóčka-Krenz, H., Kara, M., Makowiecki, D. 2004:** The beginnings, development and the character of the early Piast stronghold in Poznań. In: P. Urbańczyk (ed.): *Polish Lands at the Turn of the First and the Second Millennia*. Warszawa: Instytut Archeologii i Etnologii PAN, 126–166.
- Kolařík, V., Merta, D., Peška, M., Sedláčková, L., Staněk, P., Zůbek, A. 2016:** Brno (okr. Brno-město). *Přehled výzkumů* 57(2), 253–269.
- Kowalska, A. B. 2011:** Wytwórczość i zajęcia niewytwórcze (grupa funkcjonalna B). In: A. Kowalska, M. Dworaczek: *Szczecin wczesnośredniowieczny. Nadodrzańskie centrum*. Warszawa: Instytut Archeologii i Etnologii PAN.
- Kubiak, S. 1998:** *Znaleziska monet z lat 1146–1500 z terenów Polski*. Poznań: Z. Bartkowiak.
- Langenheim, K. 1936:** Die Bedeutung der Wikinger für Schlesiens Frühgeschichte. *Altschlesien* 6(2), 273–316.
- Leciejewicz, L. 1983:** Wymiana handlowa. In: E. Cnotliwy, L. Leciejewicz, W. Łosiński (red.): *Szczecin we wczesnym średniowieczu. Wzgórze Zamkowe*. Wrocław: Zakład Narodowy im. Ossolińskich, 282–285.
- Lisowska, E. 2013:** *Wydobycie i dystrybucja surowców kamiennych we wczesnym średniowieczu na Dolnym Śląsku*. Wrocław: Instytut Archeologii Uniwersytetu Wrocławskiego.
- Macháček, J., Měchura, R. 2013:** Raně středověké olovo z jižní Moravy a hutnické centrum na Slezsko-krakovské vysočině. In: P. Boroń (red.): *Argenti fossores et alii*. Wrocław: Wydawnictwo Chronikon, 275–287.
- Makohonienko, M., Kara, M. 2016:** Rozwój wczesnomiejskich założeń środkowej Wielkopolski

- środowisko i gospodarka miasta Poznania rekonstruowana na podstawie archiwów kopalnych. Zarys problematyki. In: M. Kara, M. Makohonienko, A. Michałowski (red.): *Przemiany osadnictwa i środowiska przyrodniczego Poznania i okolic od schyłku starożytności do lokacji miasta*. Poznań: Bogucki Wydawnictwo Naukowe, 13–22.
- Marcinkiewicz, K., Piekalski, J. 2018:** Przemiany zagospodarowania terenu w fazach protomiejskich. In: J. Piekalski, K. Wachowski (red.): *Rytm rozwoju miasta na kulturowym pograniczu. Studium strefy placu Nowy Targ we Wrocławiu. Część I*. *Wratislavia Antiqua* 23(I). Wrocław: Instytut Archeologii Uniwersytetu Wrocławskiego, 21–140.
- Młynarska-Kaletynowa, M. 1986:** *Wrocław w XII–XIII wieku. Przemiany społeczne i osadnicze*. Wrocław: Zakład Narodowy im. Ossolińskich.
- Młynarska-Kaletynowa, M. 1991:** Struktura społeczna stołecznych ośrodków polskich w XI–XII wieku. In: L. Leciejewicz (red.): *Miasto zachodniosłowiańskie w XI–XII wieku. Społeczeństwo i kultura*. Wrocław: Zakład Narodowy im. Ossolińskich, 9–26.
- Młynarska-Kaletynowa, M. 1992:** Funkcje placu we wczesnych miastach zachodniej Słowiańszczyzny. *Kwartalnik Historii Kultury Materialnej* 40(3), 289–294.
- Moździoch, S. 1990:** *Organizacja gospodarcza państwa wczesnopiastowskiego na Śląsku. Studium archeologiczne*. Wrocław: Zakład Narodowy im. Ossolińskich.
- Moździoch, S. 2000:** Nowe dane do zagadnienia socjotopografii piastowskich grodów kasztelańskich w X–XII wieku na przykładzie Wrocławia i Bytomia Odrzańskiego na Śląsku. In: A. Buko, Z. Świechowski (red.): *Osadnictwo i architektura na ziemiach polskich w dobie Zjazdu Gnieźnieńskiego*. Warszawa: Instytut Archeologii i Etnologii PAN, 331–354.
- Moździoch, S. 2002:** *Castrum munitissimum Bytom. Lokalny ośrodek władzy w państwie wczesnopiastowskim*. Warszawa: DiG.
- Moździoch, S., Suchodolski, S. 2006:** Obieg monetarny na Śląsku w XI wieku na przykładzie znalezisk z Bytomia Odrzańskiego. In: M. Dworaczyk, A. B. Kowalska, S. Moździoch, M. Rębkowski (red.): *Świat Słowian wczesnego średniowiecza*. Szczecin: Instytut Archeologii i Etnologii PAN, 141–148.
- Nakielski, W. 2012:** Propozycja nowej atrybucji monet śląskich przełomu XI i XII w. w świetle depozytu z miejscowości Kopacz gm. Złotoryja. In: W. Garbaczewski, R. Macyra (red.): *Pieniądz i banki na Śląsku*. Studia nad dziejami pieniądza i bankowości w Polsce 2. Poznań: Muzeum Narodowe w Poznaniu, 147–184.
- Ostrowska, E. 1959:** Prace wykopaliskowe na Ostrowie Tumskim we Wrocławiu w roku 1956. *Sprawozdania Archeologiczne* 6, 144–157.
- Pankiewicz, A. 2015:** Dynamika przemian kulturowych środkowej części grodu na podstawie znalezisk z wykopu III F. In: A. Limisiewicz, A. Pankiewicz (red.): *Kształtowanie się grodu na wrocławskim Ostrowie Tumskim. Badania przy ul. św. Idziego*. In: Pago Silensi. Wrocławskie Studia Wczesnośredniowieczne 1. Wrocław: Instytut Archeologii Uniwersytetu Wrocławskiego, 469–475.
- Pankiewicz, A., Siemianowska, S. 2018:** Czy na wrocławskim Ostrowie Tumskim w X–XIII wieku istniały pracownie szklarskie? *Śląskie Sprawozdania Archeologiczne* 60(2), 111–135.
- Pankiewicz, A., Siemianowska, S., Sadowski, K. 2014:** Wczesnośredniowieczne naczynia szklane pochodzenia wschodniego z Wrocławia – Ostrowa Tumskiego i Opoli – Ostrówka, *Śląskie Sprawozdania Archeologiczne* 56, 191–206.
- Pankiewicz, A., Siemianowska, S., Sadowski, K. 2017:** *Wczesnośredniowieczna biżuteria szklana z głównych ośrodków grodowych Śląska (Wrocław, Opole, Niemcza)*. In: Pago Silensi. Wrocławskie Studia Wczesnośredniowieczne 3. Wrocław: Instytut Archeologii Uniwersytetu Wrocławskiego.
- Pankiewicz, A., Siemianowska, S., Sadowski, K. 2018:** The Problem of Metallurgy Development in Early Medieval Strongholds Based on Finds from Ostrów Tumski in Wrocław. In: P. Kouřil, R. Procházka et al.: *Moravian and Silesian Strongholds of the Tenth and Eleventh Centuries in the Context of Central Europe*. Spisy Archeologického ústavu AV ČR Brno 57. Brno: The Czech Academy of Sciences, Institute of Archaeology, Brno, 319–341.
- Paszkiwicz, B. 2015:** Wratisław, Wrocław i Vraclav. Fałszywa moneta z ulicy św. Idziego. In: A. Limisiewicz, A. Pankiewicz (red.): *Kształtowanie się grodu na wrocławskim Ostrowie Tumskim. Badania przy ul. św. Idziego*. In: Pago Silensi. Wrocławskie Studia Wczesnośredniowieczne 1. Wrocław: Instytut Archeologii Uniwersytetu Wrocławskiego, 285–292.
- Paszkiwicz, B., Wachowski, K. 2018:** Nowa postać handlu (XIII–XV wiek). Przykład Wrocławia.

- In: J. Piekalski, K. Wachowski (red.): *Rytm rozwoju miasta na kulturowym pograniczu. Studium strefy placu Nowy Targ we Wrocławiu. Część 1. Wratislavia Antiqua 23(I)*. Wrocław: Instytut Archeologii Uniwersytetu Wrocławskiego, 500–538.
- Piekalski, J. 1999:** *Od Kolonii do Krakowa. Przemiana topografii wczesnych miast*. Wrocław: Uniwersytet Wrocławski.
- Piekalski, J. 2014:** *Praga, Wrocław i Kraków. Przestrzeń publiczna i prywatna w czasach średniowiecznego przelomu*. Acta Universitatis Wratislaviensis. Złota Seria Uniwersytetu Wrocławskiego 8. Wrocław: Wydawnictwo Uniwersytetu Wrocławskiego.
- Podliska, J., Zavřel, J. 2006:** K problematice identifikace a interpretace archeometalurgického materiálu na příkladu raně středověké Prahy. *Archaeologia historica* 31, 389–402.
- Procházka, R. 2000:** Zrod středověkého města na příkladu Brna (k otázce odrazu společenské změny v archeologických pramenech). In: M. Ježek, J. Klápště (edd.): *Brno a jeho region*. Mediaevalia archaeologica 2. Praha, Brno: Archeologický ústav AV ČR Praha, 7–158.
- Procházka, R. 2011:** Ulice a náměstí středověkého Brna. In: J. Piekalski, K. Wachowski (red.): *Ulica, plac i cmentarz w publicznej przestrzeni średniowiecznego i wczesnonowożytnego miasta Europy Środkowej*. Wrocław: Instytut Archeologii Uniwersytetu Wrocławskiego, 179–194.
- Procházka, R. 2014:** Přerov a Brno, příklady rozdílné dynamiky vývoje hradů 11. – 12. století na Moravě. In: K. Chrzan, K. Czaplá, S. Moździoch (red.): *Funkcje grodów w państwach wczesnośredniowiecznej Europy Środkowej. Społeczeństwo, gospodarka, ideologia*. Wrocław, Głogów: Instytut Archeologii i Etnologii PAN, Państwowa Wyższa Szkoła Zawodowa w Głogowie, 227–256.
- Procházka, R., Wihoda, M., Zapletalová, D. 2011:** V raném středověku. In: R. Procházka (ed.): *Dějiny Brna 1. Od pravěku k ranému středověku*. Brno: Statutární město Brno, Archiv města Brna, 447–560.
- Rozmus, D. 2014:** *Wczesnośredniowieczne zagłębienie hutnictwa srebra i ołowiu na obszarach obecnego pogranicza Śląska i Małopolski (druga połowa XI–XII/XIII wiek)*. Kraków: Księgarnia Akademicka.
- Rozmus, D., Bodnar, R. 2004a:** Odważniki želazne i „ciężarki” ołowiane z Łośnia i Okładzinowa. In: D. Rozmus (red.): *Archeologiczne i historyczne ślady hutnictwa i górnictwa na terenie Dąbrowy*
- Górnicej i okolic*. Kraków: Księgarnia Akademicka, 61–68.
- Rozmus, D., Bodnar, R. 2004b:** Wczesnośredniowieczne ślady hutnictwa w Dąbrowie Górnicej-Łośniu oraz na obszarach pogranicznych. In: D. Rozmus (ed.): *Archeologiczne i historyczne ślady Górnictwa i hutnictwa na terenie Dąbrowy Górnicej i okolic*. Kraków: Księgarnia Akademicka, 9–60.
- Sawicki, T. 2018:** Pozostałości domniemanej wczesnośredniowiecznej pracowni złotniczej. In: T. Sawicki, M. Bis (red.): *Gniezno. Wczesnośredniowieczny zespół grodowy*. Warszawa: Instytut Archeologii i Etnologii PAN, 355–361.
- Siemianowska, S. 2017:** Domniemana karczma i „dom kupca” na śląskim grodzie. Socjotopografia wczesnośredniowiecznego Opola-Ostrówka w świetle znalezisk szklanych i przedmiotów towarzyszących. In: D. Adamska, K. Chrzan, A. Pankiewicz (red.): *Cum gratia et amicitia. Studia z dziejów osadnictwa dedykowane Pani Profesor Marcie Młynarskiej-Kaletynowej z okazji 65-lecia działalności naukowej*. Wrocław: Instytut Archeologii i Etnologii PAN, Instytut Archeologii Uniwersytetu Wrocławskiego, 151–158.
- Siemianowska, S. (in press):** Glass gaming pieces for a board game from Opole-Ostrówek – Was hnefatafl played in the early medieval stronghold? In: B. Stanisławski (ed.): *Yeast for Changes. Interdisciplinary Medieval Studies IV*. Wrocław: Instytut Archeologii i Etnologii PAN.
- Steuer, H. 1997:** *Waagen und Gewichte aus dem mittelalterlichen Schleswig. Funde des 11. bis 13. Jahrhunderts aus Europa als Quellen zur Handel und Währungsgeschichte*. Zeitschrift für Archäologie des Mittelalters. Beiheft 10. Köln: Rheinland-Verlag.
- Tabaka, A. 2005:** Domniemane miejsce targowe na Ostrowie Lednickim. *Studia Lednickie* 7, 131–144.
- Tabaka, A. 2013:** Monety i biżuteria z Ostrowa Lednickiego i okolicy. Analiza i historyczna kwerenda znalezisk. In: A. Tabaka, A. M. Wyrwa (red.): *Monety i biżuteria z Ostrowa Lednickiego i okolicy*. Biblioteka Studiów Lednickich. Fontes 5. Lednica: Muzeum Pierwszych Piastów na Lednicy, 17–41.
- Trawkowski, S. 2005a:** Ołbin wrocławski w XII wieku. In: *Opuscula Medievalistica. Studia nad historią społeczną Polski piastowskiej*. Warszawa: Instytut Historii PAN, 222–255.
- Trawkowski, S. 2005b:** Taberny płockie na przełomie XI i XII wieku. W sprawie obiegu towarowo-pięniężnego. In: *Opuscula Medievalistica. Studia nad*

*historią społeczną Polski piastowskiej*. Warszawa: Instytut Historii PAN, 207–221.

**Wachowski, K. 1974:** Wagi i odważniki na Śląsku wczesnośredniowiecznym na tle porównawczym. *Przeгляд Archeologiczny* 22, 173–207.

**Wachowski, K. 1984:** Militaria z grodu na Ostrówku w Opolu. In: B. Gediga (red.): *Studia nad kulturą wczesnopolskiego Opola. Militaria-Wyroby bursztynowe*. Wrocław: Zakład Narodowy im. Ossolińskich, 11–112.

**Wachowski, K. 2001:** Elementy rodzime i obce w uzbrojeniu wczesnośredniowiecznym na Śląsku. *Acta Universitatis Lodzensis. Folia Archaeologica* 23, 153–176.

**Wachowski, K. 2010:** Odważniki. In: J. Piekalski, K. Wachowski (red.): *Ulice średniowiecznego Wrocławia*. *Wratislavia Antiqua* 11. Wrocław: Instytut Archeologii Uniwersytetu Wrocławskiego, 205–207.

## Resumé

Většina badatelů souhlasí s tím, že obchod a směna hrály důležitou roli při rozvoji hlavních hradních center v raně středověké střední Evropě. Zároveň je velmi obtížné archeologickými metodami určit místa, kde směna probíhala. Takové místo by se mohlo nacházet v centrální části hradu na Tumském ostrově ve Vratislavi. Byla zde objevena malá, prázdná plocha, která fungovala asi 100 let. V tomto prostoru bylo nalezeno mnoho artefaktů souvisejících s obchodem a směnou. Byly doprovázeny dalšími pozoruhodnými nálezy; uveďme předměty naznačující volnočasové aktivity, psací potřeby a stopy metalurgie neželezných kovů. Zdánlivě se netýkají směny zboží, ale nacházejí se i v dalších místech souvisejících s obchodem a směnou na území Polska, Čech a Moravy.

Prostorová analýza artefaktů souvisejících s obchodem z Tumského ostrova ve Vratislavi i z dalších důležitých center piastovského státu ukázala, že zde nejde ani tak o konkrétní obchodní plochy, ale spíše zóny určené ke směně zboží. Mohlo k ní docházet v rámci náměstí, ulic i zvláštních polyfunkčních zařízení – krčem.

Je velmi důležité určit dobu fungování komerčních postor na hradech. Ve Vratislavi na Tumském ostrově existovalo údajné tržiště od konce 11. až do sklonku 12. století. Časový interval existence dalších míst souvisejících s obchodem na hradech ve Vratislavi a Opoli byl podobný, do téže doby se hlásí i akumulace předmětů – indikátorů obchodu – také v dalších důležitých centrech v Polsku. Jak však bylo mnohokrát zdůrazněno, v hustě zastavěných hradech nebylo dost místa

pro umístění tržišť. Jejich provoz v rámci rozsáhlých sídlištních komplexů, avšak vně vlastního hradu, potvrzují přinejmenším od 12. století písemné prameny. Jak tedy na hradech vysvětlit přítomnost nálezů, které jasně ukazují na existenci obchodních zón? Souvisí to pravděpodobně se změnami v ekonomice Polska koncem 11. století. Během této doby zanikají depoty sekaného stříbra a rozvíjí se místní těžba olova. Tato změna je patrná také ve způsobu uložení nálezů týkajících se obchodu a směny na Tumském ostrově ve Vratislavi. Takové arefakty pocházející z druhé poloviny 11. století se vyskytují téměř výhradně v domech, od konce 11. století se objevují hlavně na náměstích a ulicích. Archeologické i písemné prameny nevylučují existenci několika míst souvisejících s obchodem a směnou v protoměstských sídelních aglomeracích.

Prakticky ve všech uvažovaných lokalitách je také třeba věnovat pozornost konstatovanému vztahu mezi přítomností hmotných dokladů směny a stopami metalurgie neželezných kovů. Analýza všech těchto těchto zjištění a jejich vzájemných vztahů může významně obohatit naše poznání raně středověké ekonomiky včetně forem a organizace směny.

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