

Development of settlement in the Kalisz region in the eleventh and twelfth centuries based on research on the Słuszków I and Słuszków II hoards

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Development of settlement in the Kalisz region in the eleventh and twelfth centuries based on research on the Słuszków I and Słuszków II hoards



Rozwój osadnictwa w rejonie Kalisza w XI i XII wieku w świetle badań skarbów Słuszków I i Słuszków II

Abstract: The article presents considerations on the role of single and mass monetary finds in exploring the changes in early medieval settlement structures related to Kalisz and the region. Archaeological excavations has so far been conducted mainly in Kalisz. Other sources of knowledge about the settlement network: fieldwalking surveys carried out as part of the Polish Archaeological Record (AZP) and the few historical sources from the early Middle Ages made it possible to create only a preliminary reconstruction showing the historical, cultural and settlement processes taking place in the region. The 2020 discovery of the second silver hoard in Słuszków and the subsequent excavations provided interesting material for the assessment of the settlement structures of the Kalisz region and their evolution in each distinct phase of early medieval habitation.

Key words: settlement, early Middle Ages, Kalisz, hoards, silver

Abstrakt: W artykule przedstawiono rozważania nad rolą pojedynczych i masowych znalezisk monetarnych w badaniach nad rekonstrukcją przemian wczesnośredniowiecznych struktur osadniczych związanych z Kaliszem i jego regionem. Prace archeologiczne prowadzone były dotychczas głównie w samym mieście. Pozostałe źródła wiedzy na temat osadnictwa: archeologiczne badania powierzchniowe, prowadzone w ramach Archeologicznego Zdjęcia Polski oraz nieliczne źródła historyczne z okresu wczesnego średniowiecza dają możliwość wykonania jedynie szkicu rekonstrukcyjnego, pozwalającego na wstępne zdefiniowanie lokalnych procesów historycznych i kulturowych. Odkrycie drugiego skarbu srebrnego w Słuszkowie w 2020 r., a także przeprowadzone w związku z tym badania archeologiczne dostarczyły ciekawych materiałów źródłowych do odtworzenia struktury osadnictwa regionu kaliskiego i scharakteryzowania jej przemian w każdej z wydzielonych faz wczesnośredniowiecznego zasiedlenia.

Słowa kluczowe: osadnictwo, wczesne średniowiecze, Kalisz, skarby, srebro

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When Stanisław Trawkowski considered the issue of the origin of the Kalisz Region sixty years ago, he had access to a limited number of historical and archaeological sources.¹ Research into the central part of this region — Kalisz Zawodzie hillfort² — conducted since 1958 has provided new materials, confirming, for example, the existence of St. Paul's Collegiate Church, previously known from written sources. Research work carried out on sites located in the areas around this settlement centre, particularly the archaeological field survey programme of the Polish Archaeological Records (AZP), only at the end of the 1990s extended our knowledge of the development of the Kalisz region in terms of settlement changes dated to the Early Middle Ages. Therefore Trawkowski made use of analysis of written sources, the literature available at the time, and theoretical deliberations on the role of economic relationships in the development of the region. The area he outlined on the maps attached to the paper indicated the extent of the supply base of the central settlement complex in Kalisz. Its nature, as a region that evolved from the centre of Kalisz based on a junction of arterial and local roads, was described by Teresa Wąsowiczówna in 1960.³ It should be noted that these roads connecting Silesia with Kuyavia and the Vistula valley, or Poznań with Kraków, were only sections of routes of supra-regional significance. It seems interesting that the settlement development related to the functioning of these routes is clearly reflected in the distribution of hoards analysed below. Over the following decades, the amount of literature describing early medieval Kalisz and settlement connected with it grew. Starting from the late 1990s, collective publications were regularly published, describing the history of Kalisz region and analysing archaeological sources obtained during field research.⁴ A summary of the state of research and the previous discussion was presented in papers in the recent volume of *Atlas Historyczny Miast Polskich*, which was dedicated to Kalisz.⁵ Most studies assume that the development of the settlement complex in Kalisz can be divided into several stages.⁶ This division was established on the base of historical analysis of written sources and interpretations of the archaeological materials discovered on numerous sites. Thus, one could distinguish the tribal period from the seventh/eighth century to approx. middle of the tenth century; the early Piast period until the monarchy crisis in the 1030s; then a period from the reign of Casimir I the Restorer to the end of the reign of Bolesław III Wrymouth, and finally — the period of feudal fragmentation of Poland. These are the stages that should be considered as crucial for the development of settlement structures associated with the main stronghold.

Even though research into early medieval settlement structures connected with the Kalisz centre started more than fifty years ago, there are still many issues left unresolved. The concentration of research efforts on the main part of the complex and the abundance of historical

¹ Trawkowski S. 1962. As far as historical sources are concerned, it was not until 1982–1999 that the next six volumes Diplomatic Code of the Greater Poland — *Codex diplomaticus Maioris Poloniae*, containing over 2000 documents created before 1444, were published.

² A monograph of the Kalisz Zawodzie hillfort will soon be published in the *Origines Polonorum* series.

³ Wąsowiczówna T. 1960.

⁴ Kalisz. 1998; Kalisz. 2013; Wokół początków. 2016a.

⁵ Atlas. 2021. The part devoted to the Early Middle Ages includes three papers discussing the issue of the formation and development of the centre (Baranowski T. 2021), the development of church institutions (Wyczółkowski D. 2021a), and the finds of coins and the issue of the Kalisz mint (Kędziński A. 2021b).

⁶ Cf. Baranowski T. 2021.

material made it practically impossible to engage in the exploration of other nearby settlements. The initial evidence on them comes predominantly from the archaeological field surveys carried out under the Polish Archaeological Records (AZP) project. The particularities of the surveys, the way in which they were conducted and documented have repeatedly come in for criticism.⁷ It is now difficult to interpret their results because they need require re-verification using new research methods and by the implementation of new approach to documentation of field sites.⁸ The archaeological material collected during the AZP survey has never been fully analysed, and it is currently partially unavailable. Another difficulty is the dating of the material gathered during fieldwork. It mostly consists of pottery fragments. The margin of error in dating sites based on a few small pieces of ceramic pots is usually wide. Moreover, as work on the historic material from the Kalisz Zawodzie hillfort and the Stare Miasto (Old Town) settlement in Kalisz indicated, it is really difficult to precisely date ceramic material from the period between the end of the eleventh and the thirteenth centuries. The processes of pottery production in this period do not show any significant changes. Thus, correct dating requires larger archives of the archaeological material. The fragmentarily preserved material found during field survey is usually dated in general to the Early Middle Ages.

Additionally, the collection of written sources that could be helpful has not been fully used yet. The development of the oldest parish network, related to the settlement changes, is visible only in the case of the better explored area of Kalisz.⁹

Considering all the above issues, it is worth emphasising the significance of the unique type of source materials in the form of silver hoards and isolated coin finds.

We realize that the reasons for hiding treasures, not only in the Early Middle Ages, but also in other periods, were complex.¹⁰ Their deposition cannot be only considered in economic¹¹ or religious¹² terms. In Poland, just like in Scandinavia or in Scandinavian-influenced Rus', many hoards are dated to the Early Middle Ages. Perhaps the idea of hoarding precious metals was borrowed by the elites of the Piast state from Scandinavians. However, in Bohemia, which had equally good trading contacts with northern peoples, silver had not been deposited in such amounts.¹³ The literature suggests that the great amount of precious metal hoards may be associated with the weakness of local markets in the tenth and eleventh centuries.¹⁴ Starting from the twelfth century, the tradition of depositing treasures began to disappear. It was most probably a result of the monetisation of the economy, connected with the large-scale minting of Polish cross denars, which started in the late eleventh century.¹⁵

Despite the remarks concerning the weakness of the precious metal market, high monetisation of the market and widespread presence of precious metals used in everyday transactions, are proved by the results of research carried out in Kalisz and in its vicinity, where, within the

⁷ See Jaskanis D. 2000; Możdzioch S. 2006; Siemaszko J. 2018.

⁸ Among the others, great significance of verification research was indicated by results of the project "Kompleksowe, weryfikacyjne i nieinwazyjne badania stanowisk zagrożonych niszczeniem w środkowym biegu Prosną" ("Comprehensive, Verification, and Non-Destructive Exploration of Sites at Risk of Destruction in the Middle Reaches of the Proсна River") conducted in 2013–2014 by a group of archaeologists connected with the District Museum of the Kalisz Region and the Institute of Archaeology and Ethnology of the Polish Academy of Sciences.

⁹ Cf. Wyczółkowski D. 2021a; Wyczółkowski D. 2021b.

¹⁰ Suchodolski S. 2003; Bogucki M. 2004; Duczko W. 2005.

¹¹ Bolin S. 1926; Tabaczyński S. 1957.

¹² Kowalewski J. 2001; Urbańczyk P. 2002; Kowalewski J. 2004; Urbańczyk P. 2004.

¹³ Duczko W. 2020, p. 56.

¹⁴ Tabaczyński S. 1957.

¹⁵ Kędzierski A. 2010.

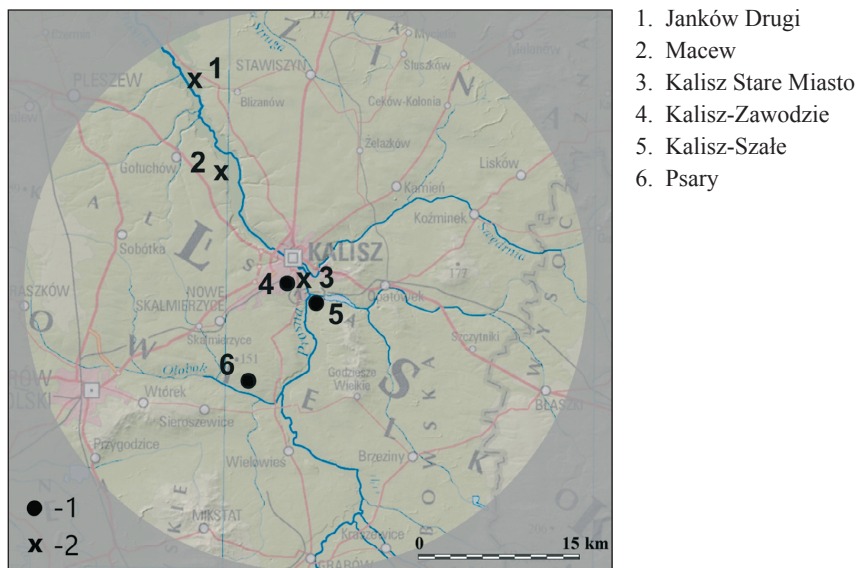


Fig. 1. Coin finds from the Kalisz region up to the mid-10th century;
1 — hoard, 2 — single find (prepared by A. Kędzierski)

Ryc. 1. Znalaziska monet z regionu kaliskiego do połowy X w.;
1 — skarby, 2 — znalezisko pojedyncze (oprac. A. Kędzierski)

range of settlements, isolated coins and their fragments as well as hacksilver used in small transactions have been found.¹⁶ The oldest coins — oriental dirhams — are mostly dated to the first half of the tenth century.¹⁷

A number of hoards indicating, in our opinion, places of significance for the settlement analysis have been discovered near Kalisz. The fact that they were hidden seems to be connected with settlements important for the economic and settlement network development of the area constituting the surroundings of the centre. Similar conclusions were formulated for Gotland, where, supposedly, the treasures had also been hidden in chosen places.¹⁸

Coins from the pre-state period found in Poland are mostly oriental dirhams discovered as single coins and in hoards (Fig. 1). However, in comparison to finds dated to a later period, they are not frequent in Prosna River basin. So far, their ten fragments have been discovered in three places. Two of them were located to the northwest of Kalisz in the villages of Janków Drugi¹⁹ and Macew.²⁰ The remaining eight pieces were obtained during an archaeological survey of the Stare Miasto settlement in Kalisz. This suggests a developing monetary circulation and the use of silver in transactions on the local market. Two of the three known hoards of dirhams are directly related to the Kalisz settlement centre. One of them (T.p.q.: 944/5), only partially preserved, comes from the settlement of Zawodzie located next to the hillfort.²¹ The second one,

¹⁶ Cf. Kędzierski A., Wyczółkowski D. 2016, pp. 95–101; Kędzierski A. et al. 2020.

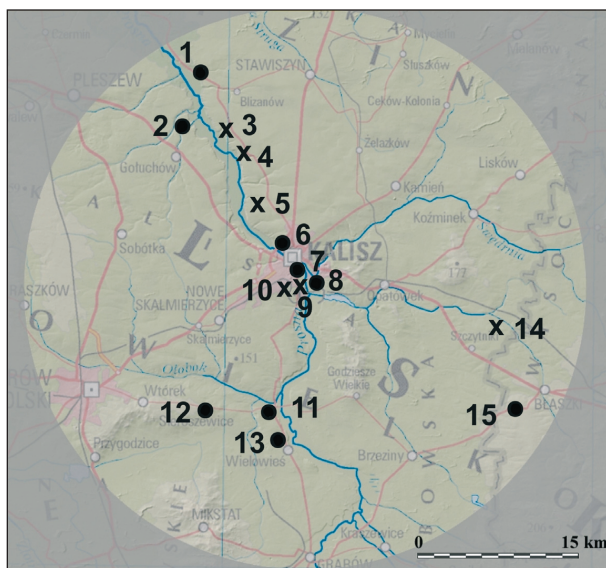
¹⁷ The oldest of the oriental coins found in the Kalisz Region is a fragment of an Umayyad dirham from the eighth century, cf. Szczurek T. et al. 2017, no. 84.

¹⁸ Östergren M. 1989.

¹⁹ Szczurek T. et al. 2017, no. 84.

²⁰ Szczurek T. et al. 2017, no. 141.

²¹ Kędzierski A. et al. 2020, pp. 215–225.



1. Janków Drugi
2. Tursko
3. Żerniki
4. Kurza
5. Zagorzyn
6. Kalisz-IV
7. Kalisz-Majków
8. Kalisz-Rajsków
9. Kalisz-Stare Miasto
10. Kalisz-Zawodzie
11. Ołobok
12. Sieroszewice
13. Masanów
14. Cieszyków
15. Brończyn-Romanów

Fig. 2. Coin finds from the Kalisz region from the period between mid-10th and the mid-11th century; markers as in Fig. 1 (prepared by A. Kędzierski)

Ryc. 2. Znalaziska monet z regionu kaliskiego od połowy X do połowy XI w.; oznaczenia jak na ryc. 1 (oprac. A. Kędzierski)

from Kalisz-Szałe (T.p.q.: 934/5),²² was deposited approx. 2 km to the southeast of the same hillfort, in a small settlement on the Krępicza River. It seems that it might have been the nodal point of a trade route connecting Kalisz with Sieradz, and further on with Kraków and Kyiv. The third hoard, also containing only dirhams, comes from Psary.²³ The village is located 11 km to the southwest of Kalisz, on the Ołobok River, a left-bank tributary of Prosna. Both hoards and single finds of dirhams, dated to the pre-state period, are connected with settled areas of the Prosna River basin. A small number of coin finds corresponds with a rather weak, scattered settlement network characteristic the same phase. It is clearly visible in case of the Stare Miasto settlement in Kalisz, where the above mentioned fragments of dirhams were found. Settlement facilities from the tribal period discovered there are considerably less numerous than structures dated to the time between the eleventh and the thirteenth centuries.

In the second half of the tenth century, large numbers of West European, mostly German, denars started to appear in the Polish territory; however, finds still include some oriental coins. We know of at least fifteen single and collective finds of coins in Kalisz and the region, dated to the time between approximately the middle of the tenth century and the middle of the eleventh century (Fig. 2). Similarly to those of the previous period, they mostly come from sites in the Prosna valley, located particularly to the north of Kalisz. Single coins have been discovered on three settlements located in that area in Żerniki,²⁴ Kurza²⁵ and Zagorzyn²⁶ and a hoard has been

²² Szczurek T. et al. 2017, no. 92.

²³ Szczurek T. et al. 2017, no. 206. Dirhams from the hoard have not been preserved, so it is not possible to determine their exact chronology.

²⁴ Bogucki M. et al. 2016, no. 262.

²⁵ Bogucki M. et al. 2016, no. 259.

²⁶ Szczurek T. et al. 2017, no. 270.

uncovered on the fourth — Janków Drugi (T.p.q.: 1018).²⁷ The highest concentration of silver finds can be seen in Kalisz and its closest vicinity, where single coins have been discovered in the Zawodzie hillfort²⁸ and on the Stare Miasto settlement site.²⁹ At least two hoards from the beginning of the eleventh century also come from Kalisz: Kalisz-Rajsków (T.p.q.: 992–1000),³⁰ Kalisz-Majków (T.p.q.: 1016),³¹ and perhaps also Kalisz IV.³² The first one was hidden in the settlement of Rajsków located approx. 500 m to the east of the hillfort and 80 m away from the riverbed of the Swędnia, a right tributary of the Prosna. This place is probably located at the eastbound crossing from Zawodzie through the Prosna valley. A large concentration of deposits from the end of the tenth century or from the beginning of the eleventh century has been found approx. 15–16 km to the southwest of Kalisz.³³ This significant cluster includes hoards from Ołobok (T.p.q.: 983 or 1000),³⁴ Sieroszewice (T.p.q.: 976),³⁵ and Masanów (T.p.q.: 985).³⁶ An intensively developing set of settlements from that time also can be located there. On the map of finds dated to the period from approximately the mid-tenth century to the mid-eleventh century, two more discoveries should be placed, made 20–25 km to the southeast of Kalisz. A single coin from this area comes from Cieszyków,³⁷ while a hoard has been uncovered in Brończyn-Romanów (T.p.q.: 1027).³⁸ Both hoards and settlement points existing in the same phase were chronologically related to the establishment of the Polish state, and then to the reign of Mieszko I and Bolesław the Brave. Lack of later hoards, dated after 1050, can indicate considerable settlement or social changes, most probably related to the crisis of the statehood in the 1030s.

In the second half of the eleventh century, foreign coins started to be gradually replaced with local coins, probably manufactured in Kalisz itself.³⁹ On the settlement map of that time, the location of the coin treasures is significantly different from the previously described older phase (Fig. 3). Kalisz still played the leading role, what is confirmed by at least three silver hoards: Kalisz XI (T.p.q.: 1054),⁴⁰ Kalisz IX,⁴¹ and Kalisz-Dobrzec (T.p.q.: ca. 1090).⁴² Excavations at early medieval sites in Kalisz delivered a few times more individual coins issued after 1050 than it was observed in relation to earlier coins. Nevertheless, the cluster of silver hoards was recorded approx. 20–24 km to the northeast of Kalisz — towards Konin and Kruszwica: in Zbiersk (T.p.q.: 1061 or 1090)⁴³ and mostly in Słuszków, where two large hoards of cross denars

²⁷ Szczurek T. et al. 2017, no. 83. Also a completely scattered eleventh-century hoard from Tursko comes from this area — Szczurek T. et al. 2017, no. 258. However, it is impossible to determine its chronology in greater detail.

²⁸ Szczurek T. et al. 2017, no. 95.

²⁹ Bogucki M. et al. 2016, no. 100; Szczurek T. et al. 2017, no. 100.

³⁰ Szczurek T. et al. 2017, no. 97.

³¹ Szczurek T. et al. 2017, no. 88.

³² Szczurek T. et al. 2017, no. 91. The treasure has not been preserved in its entirety, and it is not possible to precisely determine its chronology.

³³ On account of its location, the already mentioned slightly older hoard of dirhams from the village of Psary could be included in this group.

³⁴ Szczurek T. et al. 2017, no. 169.

³⁵ Szczurek T. et al. 2017, no. 228.

³⁶ Szczurek T. et al. 2017, no. 145.

³⁷ Szczurek T. et al. 2017, no. 26.

³⁸ Szczurek T. et al. 2017, no. 15.

³⁹ Kędziński A. 1999; Kędziński A. 2005; Kędziński A. 2021a, pp. 175–192.

⁴⁰ Szczurek T. et al. 2017, no. 98.

⁴¹ Szczurek T. et al. 2017, no. 96. The hoard has not been preserved in its entirety, but it certainly included cross denars from the second half of the eleventh century.

⁴² Bogucki M. et al. 2016, no. 256.

⁴³ Szczurek T. et al. 2017, no. 274.

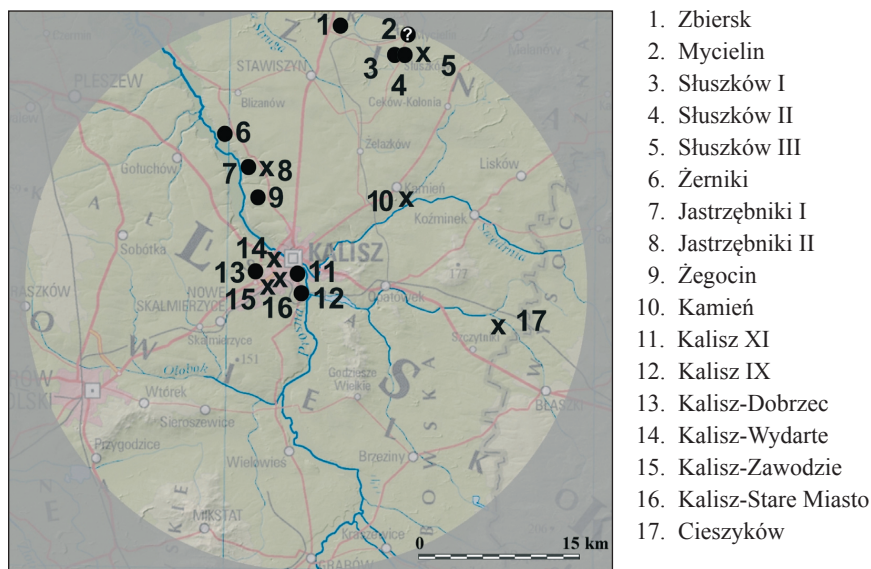


Fig. 3. Coin finds from the Kalisz region from the period between mid-11th century to around 1170; markers as in Fig. 1 (prepared by A. Kędziński)

Ryc. 3. Znalaziska monet z regionu kaliskiego od połowy XI w. do ok. 1170 r.; oznaczenia jak na ryc. 1 (oprac. A. Kędziński)

(T.p.q.: 1095, early twelfth century)⁴⁴ have been discovered along with four loose cross denars found during field research.⁴⁵ Such coins have been still found in villages located on the Prosna banks, to the north of Kalisz. The hoards, mostly including later types of cross denars, have been registered in Żerniki (T.p.q.: 1100),⁴⁶ at the open settlement in Jastrzębniki, where they are dated to the eleventh/twelfth century (T.p.q.: 1086),⁴⁷ and in Żegocin.⁴⁸ Moreover, during excavation of the settlement in Jastrzębniki, a cross denar interpreted as not related to any hoard was uncovered.⁴⁹ In settlements located on left-bank tributaries of the Prosna, single coins from the end of the eleventh century and the beginning of the twelfth century have been discovered in Kamień on the Swędria⁵⁰ and in the already mentioned Cieszyków on the Cienia.⁵¹

During a programme of exploring sites of the hidden hoards, it was concluded that the vast majority of them had been deposited in settlements.⁵² An exception is an unique hoard from

⁴⁴ Szczurek T. et al. 2017, no. 235; Kędziński A. 2021a, pp. 32–35. From the same area comes another silver hoard found at the village of Mycielin — Szczurek T. et al. 2017, no. 158. However, its exact chronology is impossible to determine. Only ornaments, generally dated to the eleventh century, are known from this hoard.

⁴⁵ In object no. 8, recorded during the archaeological excavation of the place where later the treasure of Słuszków II was found, one cross denar dated to the end of the eleventh or to the beginning of the twelfth century was discovered.

⁴⁶ Kędziński A. 2021a, p. 176.

⁴⁷ Szczurek T. et al. 2017, no. 86.

⁴⁸ Szczurek T. et al. 2017, no. 275. The hoard has not been preserved in its entirety, but it certainly included cross denars from the second half of the eleventh century.

⁴⁹ Bogucki M. et al. 2016, no. 253.

⁵⁰ Bogucki M. et al. 2016, no. 257.

⁵¹ Szczurek T. et al. 2017, no. 26.

⁵² Kędziński A. 2020.

Kalisz Dobrzec, with a total weight of over 3.8 kg. It consisted of more than 500 pieces of silver ingots, three small fragments of silver ornaments, and only two coins. The deposit, tentatively dated to the late eleventh or early twelfth century, was hidden more than 200 m to the south of the settlement, by a small watercourse.⁵³

Most of the hoards have been dated rather precisely, which is why they constitute important evidence of settlement structures, including both their development and disappearance. One of the most interesting examples is the discovery of the cluster of hoards to the north of Kalisz, hidden in the end of the eleventh century or in the beginning of the twelfth century. Based on the written and archaeological sources, it is difficult to define the reason for the settlement development in the area at the time. In addition, the composition of two hoards found in Słuszków suggests a possibility that a complex of private estate was located there, the owners of which came from elite circles directly related to the duke.

The two Słuszków hoards are unique among Polish finds from the Early Middle Ages. Even their size draws attention. The first one, Słuszków I, which had most probably included approx. 20,000 items before it was partially scattered during the World War II, is one of larger, if not the largest, precious-metal hoards from the Early Middle Ages in Poland. It is estimated that originally it could have weighed about 17 kg. In terms of the number of artefacts, it can only be compared with the silver hoard from Dzierżnica II (T.p.q.: 980/1–989/90 or 983–985),⁵⁴ hidden at the end of the tenth century. The preserved part includes 120 whole coins and 20,855 coin fragments, weighing approx. 15 kg. By comparison, the hoard from Głogów (T.p.q.: 1201), deposited at the beginning of the thirteenth century, includes over 20,638 artefacts weighing more than 6 kg.⁵⁵

The second hoard from Słuszków (“Słuszków II”) consisting of 6,695 artefacts, altogether weighing more than 5 kg, is definitely one of the largest deposits from the late eleventh or early twelfth century. Only the hoards from Konin-Grójec (T.p.q.: ca. 1100 — probable weight of approx. 5 kg)⁵⁶ and Ruda near Wieluń (T.p.q.: ca. 1070 — the weight of approx. 7 kg)⁵⁷ corresponded in size with this hoard.

The contents of Słuszków hoards are also exceptional. Both include extremely rare denars of Sieciech, palatine of Władysław I Herman, mostly of type 1, with a cross pattée on the reverse. Such a symbol is very similar or even identical to the one stamped on the reverses of some cross denars.⁵⁸ It should be emphasized that both of the Słuszków hoards contain over ninety percent of the total sum of currently known specimens of Sieciech’s large denars with a cross pattée.⁵⁹ They also contain the largest number of known examples and types of cross denars minted in the last decade of the eleventh century and the first years of the twelfth century: coins with pearl crosses, plain crosses and crossiers on the obverse — types V, VI, VII according to Marian Gumowski, most likely produced mainly in the local mints.⁶⁰ The collection of two types of denars attributed to duke Zbigniew — the first-born son of Władysław I Herman — is also exceptional.⁶¹ The Słuszków I hoard includes more than 3,200 items of such coins,

⁵³ Kędziński A., Wyczółkowski D. 2017, pp. 338–342; Kędziński A. 2020, p. 20.

⁵⁴ Szczurek T. et al. 2017, no. 36.

⁵⁵ Kubiak S. 1998, no. 35.

⁵⁶ Szczurek T. et al. 2017, no. 74.

⁵⁷ Gorlińska D. et al. 2015, no. 140.

⁵⁸ Gumowski M. 1939, varieties CNP 858/848, CNP 858/863, and CNP 858/1480; Kędziński A. 2021a, varieties Sdm-6C12, Sdm-6C13, Sdm-6C14, Sdm-6C15, Sdm-6C17, and Sdm-6C18; see also Kędziński A. 1999.

⁵⁹ Type 1, according to S. Suchodolski (Suchodolski S. 1987).

⁶⁰ Kędziński A. 1999; Nakielski W. 2013.

⁶¹ Gumowski M. 1939, varieties CNP 813 and CNP 867–868; Kędziński A. 2021a, varieties Sdm-6C19, Sdm-6C20, and Sdm-6D4.

while other such hoards include only isolated items. Thus, it can be assumed that they came directly from the duke's mint, which could have been located in Kalisz.⁶² The two hoards of Słuszków also included West European denars, mostly German, and older cross denars struck in Saxon mints, just like half-denar obols. The Słuszków I hoard has been quite precisely dated based on a coin of Hungarian King Coloman, minted in the middle of his reign (1095–1116), approx. in 1105.⁶³

A distinguishing feature of both hoards are jewellery assemblages. In the Słuszków I hoard, there were thirty-three filigree silver beads, which had not been destroyed, unlike jewellery from most other hoards, and a silver chain that had not been fully preserved. The Słuszków II hoard included gold jewellery: two bands and two rings with enamel (?) and gold granulation. Three of these artefacts were most probably made at German goldsmith workshops.⁶⁴ One of the bands was most probably manufactured in Rus', as it is suggested by a prayer inscription in Cyrillic.⁶⁵ Gold items were treated in a special way, considering their location observed during exploration of the vessel with the hoard: they were put together into one place. Furthermore, one of the gold bands shows the imprinted fibers of the fabric, which may indicate that they were wrapped together with a piece of cloth. The results of a tomography of the vessel containing the treasure taken before its exploration showed that there were at least three large bundles of artefacts inside.

Inventories of early medieval hoards from the territory of the Polish state of the time rarely include fragments of gold items or gold jewellery deposited as a whole. In hoards dated to the end of the eleventh century and the beginning of the twelfth century, there are no such finds. Examples of fully preserved gold artefacts are the beads from the hoard from Borucin near Aleksandrów Kujawski, dated to the middle of the eleventh century.⁶⁶ A fully preserved gold ring and bracelet were found in the hoard from Kolbudy near Pruszcz Gdański, dated to the tenth century.⁶⁷ The hoard Trzcina II⁶⁸ included two gold objects: a small gold ball and a difficult to interpret object described in publications as a lunula or a fragment of an icon, while the hoard uncovered in Sieraków⁶⁹ contained a gold bracelet. Therefore it seems that most gold items found in hoards are rather random additions. Rings from the Słuszków II deposit constitute a unique collection of gold artefacts compared with other finds from the territory of Poland. Undoubtedly, these rings were owned by people of high standing in the hierarchy of Polish elites in the early Middle Ages. Moreover, a comparison of their size indicates that they constitute two sets of jewellery, each consisting of a ring and a band. It is another feature showing uniqueness of both hoards from Słuszków. The same may be said in relation to the place of their deposition.

Significant evidence concerning the deposition place was brought by the excavation carried out in September 2021.⁷⁰ In two trenches were found archaeological structures dated from the eleventh to twelfth century, related to the functioning of the settlement in the Early Middle Ages, and later features dated from the fifteenth century. Trench 2 was located in the place where the Słuszków II hoard had been discovered. Because of a power pole standing there, the trench

⁶² Kędziński A. 2005; Kędziński A. 2021a, pp. 175–192.

⁶³ Huszár L. 1979, position no. 37.

⁶⁴ Duczko W. et al. 2022, p. 151.

⁶⁵ Kędziński A. 2021a, pp. 34–35.

⁶⁶ Gorlińska D. et al. 2015, no. 10.

⁶⁷ Horoszko G. et al. 2016, no. 111.

⁶⁸ Reyman-Walczak B. et al. 2013, no. 101.

⁶⁹ Szczurek T. et al. 2017, no. 227.

⁷⁰ The work on the site 10 in Słuszków was carried out as a part of planned tasks of the Kalisz Archaeological Site of the Institute of Archaeology and Ethnology of the Polish Academy of Sciences and under the National Science Centre's grant no. 2015/19/B/HS3/00549. The excavation works were carried out thanks to the financial support of the Marshal's Office of the Wielkopolskie Voivodeship.

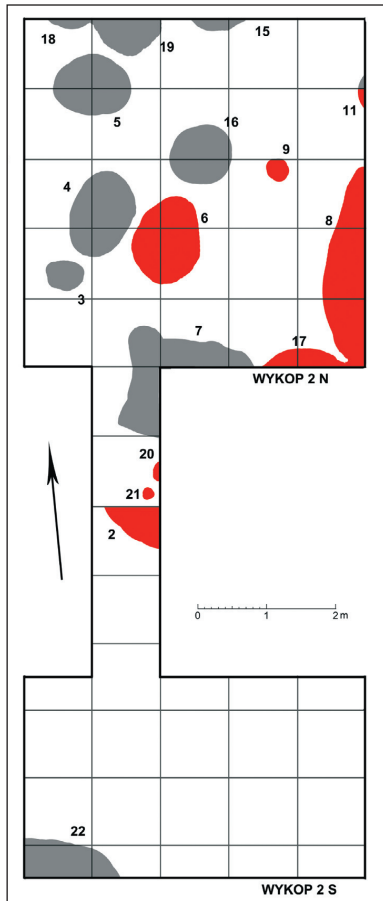


Fig. 4. Słuszków, site 10, archaeological trench 2. Early medieval features are marked in red (prepared by A. Kędziński)

Ryc. 4. Słuszków, st. 10, wykop 2. Na czerwono zaznaczono obiekty wczesnośredniowieczne (oprac. A. Kędziński)

covered a small area between the supports of the pole, where the hoard was found, with extensions to the north and to the south of the supports. Trench 3 was located in the place where silver artefacts were found in the arable soil, initially related to the site of the earlier discovery of the Słuszków I hoard. During the exploration, a large modern feature was recorded there, interpreted as a sand excavation site for construction purposes, alongside three structures dating back to the Early Middle Ages (features 11, 12, 13). The pottery found during exploration of structure 11, interpreted as a fragment of a residential structure with several stages of use, can be dated to the twelfth century.

The most interesting results were yielded by the exploration of trench 2, where artefacts dated to three stages of use were discovered (Fig. 4). The oldest material found indicate that the area was settled during the Roman Period (feature 22). In the Early Middle Ages, a complex of residential (features 2, 8, 17, 20, and 21) and utility structures (features 6 and 10) was created. Structure 9, isolated during exploration of the cultural layer not destroyed by ploughing, the creation of which is dated to the Early Middle Ages, turned out to be interesting for dating. The exploration revealed that it was only a cluster of pottery fragments. Analysis of the material indicated that these were the remains of two small vessels sunk into the natural ground. Their morphological and technological properties are characteristic for vessels dated to the eleventh century. The fact they were arranged upside down was probably connected with the functioning of residential structures. Similar vessels or their large fragments in the same arrangement were discovered during excavations carried out for over a dozen seasons at Stare Miasto in Kalisz, which was a large medieval craft and trade settlement. Its functioning is dated to the period from the first half of the tenth century. The village developed over nearly four centuries, gaining a character of a proto-town settlement with numerous, often highly specialised, craftsman's workshops.⁷¹ In the late thirteenth century, a village was founded there under the German Law. During the exploration of the site, the tradition of arranging vessels upside down was observed in a few trenches. The most obvious case seems to be the discovery of a large vessel, containing a skeleton of a whole hen, arranged in that way in the natural ground. Using statistical and technological analysis, the vessel

⁷¹ Cf. Kędziński A., Wyczółkowski D. 2016.



Fig. 5. Słuszków, site 10, archaeological trench 2 during excavations. View from the north-west (prepared by A. Kędzierski)

Ryc. 5. Słuszków, st. 10, wykop 2 w trakcie prac wykopaliskowych. Widok od strony północno-zachodniej (oprac. A. Kędzierski)

has been dated to the period from the late eleventh century or, most probably, to the twelfth century. It was discovered near a residential structure and a group of ovens. Considering these observations, the vessels discovered in Słuszków seem to have had similar significance as a type of a foundation offering. The existence of such practices also in the thirteenth century is confirmed by the find of three coins of Bolesław IV the Curly placed under a quoin of a house discovered during the research works at Stare Miasto in Kalisz.⁷² The Słuszków find would confirm the dating of establishment of the settlement to the second half of the eleventh century.

Another interesting find was the discovery of the remains of a hearth (feature 6) with a characteristic fill, layers, and historic material, the creation of which we link to lead melting (Fig. 5). One can also observe close similarity to the remains of craftsman's workshops melting metals in the territory of Kalisz. Structures of this type have not been found in other settlements of the Kalisz early medieval centre.

Despite the inability to explore a majority of the site where the Słuszków II hoard was discovered, it can be said that the deposit was hidden inside a settlement structure. The structure most probably formed a functional entity with other structures (features 8 and 17). A smelting furnace operated in its immediate vicinity. The remains of the process are lead pieces found in the fill. Interestingly, the Słuszków II hoard also contained 150 silver ingots. Their preliminary inspection allows to say that they are most probably products of melting. They have no properties characteristic for artefacts that we interpret as material from smelting workshops related to the centres of lead ore mining and processing located near Dąbrowa

⁷² Kędzierski A. 2016, pp. 113–115.

Górnica.⁷³ However, only laboratory tests will allow to answer the question if the furnace was used for melting silver and cupellation.

The presented material may lead to numerous research questions. For example, we do not know whether the observed relationship between the occurrence of hoards and the development of settlements is the result of processes occurring in the past or only the effect of the state of research. We also do not know the reasons for depositing and leaving the treasures; whether the coin and ornaments sets were sealed once deposited, or if they remained open and were occasionally used. It should be remembered that a large number of hoards were hidden in settlements or in farm and residential buildings. Thus, we do not know if and how their initial content changed. Both the known source base and the state of research on treasures and settlement processes make these questions difficult to answer.

The work of numismatists usually stops at the analysis of contents of hoards, their chronology, and direction of inflow of artefacts. The previously raised problem of hoarding and formation of hoards in the Early Middle Ages stays unresolved. The discussion over it seems to have stalled. In turn, settlement research cannot be conducted without verification of the work carried out during the Polish Archaeological Records project. There is also a need for studies that include examination of written sources. Unfortunately, for the eleventh and the beginning of the twelfth century, there are only few chronicle records for Kalisz and it cannot be expected that this state will change.

For the Kalisz region, and even for the whole of Greater Poland, the composition of treasures from the end of the eleventh century consisting of almost exclusively cross denars with the addition of, mainly older, Western European coins, silver ornaments and silver ingots, is both important and difficult to explain. There are no official issue of Piast rulers in them, despite their noticeable presence in the materials obtained during the study of settlements and cemeteries.⁷⁴ The explanation of this phenomenon based only on fiscal policy and compulsory money change-over is one of many possibilities. Research on this phenomenon also needs to be continued.

The link between the chronology of the hiding of hoards and the settlement changes was indicated above. That is not a new observation as it has been present in the scientific literature for many decades. It is important, however, that it shows a large convergence with specific changes in settlement observed in the archaeological material. It should also be remembered that the discovered hoards are evidence of complex social and political processes. In addition, they illustrate both the economic development of settlement and its rapid interruption.

In case of the Kalisz region, the analysis of the chronology of the hoards confirms the development and disappearance of an important settlement by the Ołobok River. Permanent early medieval settlement in the area defined by the rivers Prosna, Barycz and Ołobok most probably begins in the second half of the ninth century. In the literature, this process is associated with climate warming and lowering of the water level.⁷⁵ After the middle of the tenth century, an increase in population density was observed in the area of the Barycz Valley. It is probably related to the influx of people from outside and to the expansive policy of the Piast dynasty, which created the conditions for the subordination of the southern borderland of Greater Poland and Silesia.⁷⁶ Around the middle of the eleventh century, the settlement in Greater Poland collapsed, which resulted in the abandonment or destruction of most towns and settlements.

In the light of the analysis of archaeological materials, the area between the Barycz and Ołobok rivers and their mouths to the Prosna seems to have been sparsely inhabited in the

⁷³ Kędziński A., Wyczółkowski D. 2017.

⁷⁴ For Giecz see Syty M. 2015; for Kalisz — Kędziński A., Wyczółkowski D. 2016; Wokół początków. 2016; Kędziński A. 2018; for Ostrów Lednicki — Monety. 2013.

⁷⁵ Chrzan K. 2014, p. 200.

⁷⁶ Chrzan K. 2014, pp. 201–203.

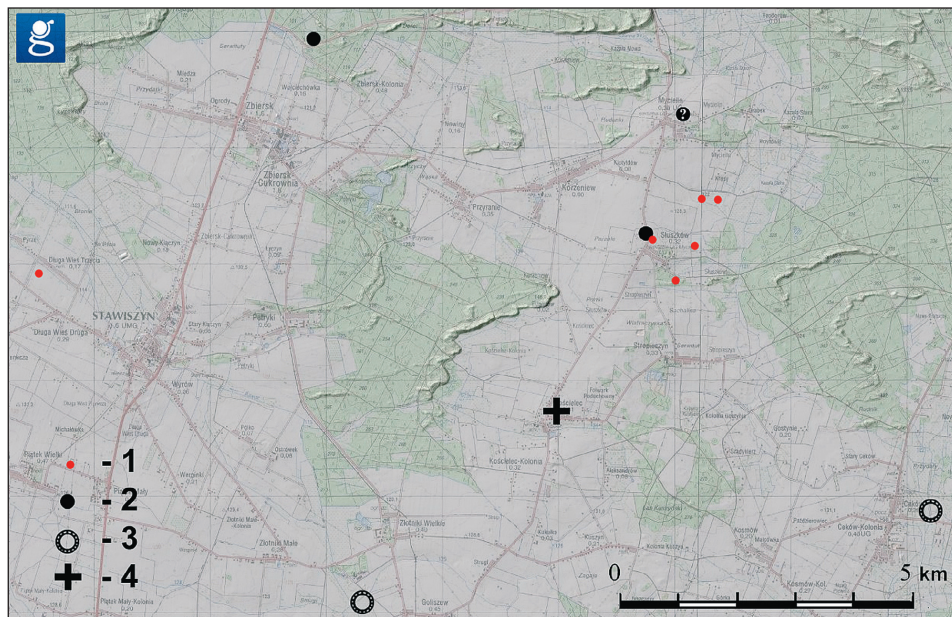


Fig. 6. Early medieval sites near Słusków (prepared by D. Wyczółkowski):
1. settlement site, 2. early medieval hoard, 3. early medieval fortified settlement, 4. romanesque church (second half of the 12th century)

Ryc. 6. Stanowiska z okresu wczesnego średniowiecza w okolicach Słuskowa (oprac. D. Wyczółkowski): 1. stanowisko osadnicze, 2. skarb wczesnośredniowieczny, 3. grodzisko wczesnośredniowieczne, 4. kościół romański (druga połowa XII w.)

early stages of the Middle Ages. As in the case of Słusków and its vicinity, for the period of the eleventh/twelfth century, the presence of hoards draws attention to the importance of the Ołobok and Barycz river basins in the earlier stages of the Middle Ages, with the simultaneous weak presence of other historical materials dating from this period. The role of the rivers, both the Prosna and its tributaries, as communication routes is visible.⁷⁷ Settlements and strongholds are located both on hills and at the bottom of valleys.⁷⁸

The analysis of archaeological material also shows the settlement development of the area associated with the Prosna Valley north of Kalisz. In this case, however, the archaeological material from field surveys and excavations confirm the conclusions drawn from the analysis of hoards and other numismatic finds.⁷⁹

Słusków itself is distinguished only by the presence of two unusual silver treasures. Both were probably deposited at the beginning of the twelfth century. However, already in the second half of the eleventh century, two treasures known from Mycielín and Zbiersk were hidden in this area (Fig. 6).

Material traces of a larger settlement cluster were not found during surface surveys. Only the excavation at the site of the discovery of the Słusków II hoard revealed the existence of the

⁷⁷ There are significant gaps in studies on the role of smaller rivers in the Early Middle Ages and the need to develop the archeology of river valleys. These works require close cooperation with representatives of natural sciences: geomorphologists, hydrologists, botanists and zoologists.

⁷⁸ See Kolenda J. 2011; Chrzan K. 2014.

⁷⁹ Wyczółkowski D., Kędzierski A. 2016, pp. 128–131.

settlement. The analysis of archaeological and numismatic materials may suggest a possibility that a complex of private estates or a knight's seat was located there from the second half of the eleventh century. One may also consider the functioning of a ducal court in Słuszków in the period from the end of the eleventh century.⁸⁰ Unfortunately, the sources confirm functioning of such high-status seats of magnates or dukes only for the thirteenth century. The location of Słuszków, almost halfway between Kalisz and Konin, may be important for further considerations on the role of that place. In turn, due to the environmental conditions, it can be assumed that the surrounding areas in the Early Middle Ages could have been used for hunting purposes.

BIBLIOGRAPHY

Published primary and secondary sources

- Atlas. 2021. *Atlas historyczny miast polskich*, 6, *Wielkopolska*, 1, *Kalisz*, eds. U. Sowina, T. Panecki, Toruń–Warszawa.
- Baranowski Tadeusz. 2021. *Przedlokacyjna przestrzeń Kalisza*, [in:] *Atlas historyczny miast polskich*, 6, *Wielkopolska*, 1, *Kalisz*, eds. U. Sowina, T. Panecki, Toruń–Warszawa, pp. 13–21.
- Bogucki Mateusz. 2004. *Dlaczego we wczesnym średniowieczu powstawały skarby złomu srebrnego? Uwagi na marginesie prac Jacka Kowalewskiego i Przemysława Urbańczyka*, “Wiadomości Numizmatyczne”, 48, 1 (177), pp. 49–76.
- Bogucki Mateusz, Ilisch Peter, Malarczyk Dorota, Chabrzyk Piotr, Kędziński Adam, Kulesza Michał, Nowakiewicz Tomasz, Wawrzczak Roksana. 2016. *Frühmittelalterliche Münzfunde aus Polen 2011–2013. Addenda et Corrigenda*, [in:] *Frühmittelalterliche Münzfunde aus Polen Inventar*, 5, eds. M. Bogucki, P. Ilisch, S. Suchodolski, Warszawa, pp. 189–340.
- Bolin Sture. 1926. *Fynden av romerska mynt i det fria Germanien. Studier i romersk och äldre germansk historia*, Lund.
- Chrzan Krystian. 2014. *Uwagi do studiów nad osadnictwem wschodniego dorzecza Baryczy od 2 poł. IX w. do poł. XI w.*, [in:] *Funkcje grodów w państwach wczesnośredniowiecznej Europy Środkowej. Społeczeństwo, gospodarka, ideologia*, eds. K. Chrzan, K. Czapla, S. Moździoch, Wrocław–Głogów, pp. 191–225.
- Duczko Władysław. 2005. *Zebrać, zdeprecjonować, schować i zapomnieć. O skarbach srebrnych Skandynawii okresu wikingów*, “Wiadomości Numizmatyczne”, 49, 2 (180), pp. 205–218.
- Duczko Władysław. 2020. *Skarby. O depozytach kruszczowych w państwie pierwszych Piastów*, [in:] *Polska — Pomorze — sąsiedzi (X–XII w.). W kręgu studiów nad początkami średniowiecznej cywilizacji europejskiej*, ed. S. Rosik, pp. 53–62.
- Duczko Władysław, Kędziński Adam, Kollinger Karol, Wyczółkowski Dariusz. 2022. *A New Late Viking-Age Hoard from Poland: Coins And Gold Jewellery As Evidence For The History Of Central Europe*, “Archäologisches Korrespondenzblatt”, 52, 1, pp. 145–156.
- Gorlińska Dobrochna, Suchodolski Stanisław, Bogucki Mateusz, Ilisch Peter, Malarczyk Dorota, Nowakiewicz Tomasz. 2015. *Frühmittelalterliche Münzfunde aus Masowien, Podlachien und Mittelpolen*, *Frühmittelalterliche Münzfunde aus Polen Inventar*, 3, eds. M. Bogucki, P. Ilisch, S. Suchodolski, Warszawa.
- Gumowski Marian. 1939. *Corpus nummorum Poloniae*, 1, *Monety X i XI w.*, Kraków.
- Horoszko Genowefa, Piniński Jerzy, Ilisch Peter, Malarczyk Dorota, Nowakiewicz Tomasz. 2016. *Frühmittelalterliche Münzfunde aus Pommern*, *Frühmittelalterliche Münzfunde aus Polen Inventar*, 2, eds. M. Bogucki, P. Ilisch, S. Suchodolski, Warszawa.
- Huszár Lajos. 1979. *Münzkatalog Ungarn. Von 1000 bis heute*, Budapest.

⁸⁰ Cf. Karol Modzelewski's remarks on princely courts in Poland in the eleventh–thirteenth centuries — Modzelewski K. 1975, pp. 15–91. For the areas of Greater Poland or the Kalisz region, no studies on the issues of princely and knightly seats in the Early Middle Ages have been conducted so far. For nearby Silesia, the country manors of the duke and bishops appear in the sources in the thirteenth century — Nowakowski D. 2017, p. 80; Nowakowski D. 2021, p. 193.

- Jaskanis Danuta. 2000. *Archeologiczne zdjęcie Polski, czyli o ciągłej potrzebie doskonalenia metod badawczych w archeologii*, "Archeologia Polski Środkowowschodniej", 5, pp. 286–298.
- Kalisz. 1998. *Kalisz wczesnośredniowieczny. Materiały Sesji Kalisz 15 czerwca 1998*, ed. T. Baranowski, Kalisz.
- Kalisz. 2013. *Kalisz na przestrzeni wieków. Konferencja naukowa pod przewodnictwem prof. dr hab. Henryka Samsonowicza*, eds. T. Baranowski, A. Buko, Kalisz.
- Kędzierski Adam. 1999. *Polskie denary krzyżowe w skarbie ze Słuszkowa*, "Wiadomości Numizmatyczne", 42, 1–2 (163–164) (1998), pp. 21–48.
- Kędzierski Adam. 2005. *Czy istnieją monety Zbigniewa, syna Władysława Hermana?*, "Wiadomości Numizmatyczne", 49, 1 (179), pp. 23–38.
- Kędzierski Adam. 2010. *Czy istnieją denary krzyżowe Władysława Hermana?*, "Rocznik Kaliski", 36, pp. 255–262.
- Kędzierski Adam. 2016. *Znaleziska wczesnośredniowiecznych monet Piastów ze Starego Miasta w Kaliszu*, [in:] *Wokół początków Kalisza. 60 lat Stacji Archeologicznej Instytutu Archeologii i Etnologii PAN w Kaliszu*, ed. A. Kędzierski, Warszawa–Kalisz, pp. 107–117.
- Kędzierski Adam. 2018. *Znaleziska monet wczesnośredniowiecznych z badań Starego Miasta w Kaliszu w latach 2012–2016*, [in:] *Badania archeologiczne na Nizinie Wielkopolsko-Kujawskiej w latach 2013–2017*, ed. J. Wierzbicki, Poznań, pp. 199–211.
- Kędzierski Adam. 2020. *Gdzie ukrywano monety we wczesnośredniowiecznym Kaliszu i jego okolicach*, "Acta Archaeologica Lodziensia", 66, pp. 15–26, <https://doi.org/10.26485/AAL/2020/66/2>
- Kędzierski Adam. 2021a. *Skarb Słuszków I. Denary krzyżowe z przelomu XI i XII wieku*, Warszawa.
- Kędzierski Adam. 2021b. *Znaleziska monet i mennictwo w średniowiecznym Kaliszu*, [in:] *Atlas historyczny miast polskich*, 6, *Wielkopolska*, 1, Kalisz, eds. U. Sowina, T. Panecki, Toruń–Warszawa, pp. 45–51.
- Kędzierski Adam, Malarczyk Dorota, Wyczółkowski Dariusz. 2020. *Recent Finds of Islamic Coins from the Old Town and Zawodzie Districts in Kalisz*, "Notae Numismatae — Zapiski Numizmatyczne", 15, pp. 211–233.
- Kędzierski Adam, Wyczółkowski Dariusz. 2016. *Stare Miasto Kalisz. 60 lat badań Instytutu Archeologii i Etnologii PAN*, [in:] *Wokół początków Kalisza. 60 lat Stacji Archeologicznej Instytutu Archeologii i Etnologii PAN w Kaliszu*, ed. A. Kędzierski, Warszawa–Kalisz, pp. 81–103.
- Kędzierski Adam, Wyczółkowski Dariusz. 2017. *Skarb placków srebrnych z Kalisza-Dobrzecza. Nowe możliwości badawcze problemu srebra lanego*, [in:] *Nummi et humanitas. Studia ofiarowane Profesorowi Stanisławowi Suchodolskiemu w 80 rocznicę urodzin*, eds. M. Bogucki, W. Garbaczewski, G. Śnieżko, Warszawa, pp. 331–351.
- Kolenda Justyna. 2011. *Wczesnośredniowieczne osadnictwo grodowe pogranicza Śląska i Wielkopolski w świetle analiz dendrochronologicznych*, [in:] *Populi terrae marisque. Prace poświęcone pamięci Profesora Lecha Leciejewicza*, eds. M. Rębkowski, S. Rosik, Wrocław, pp. 41–65.
- Kowalewski Jacek. 2001. *Okoliczności deponowania wczesnośredniowiecznych skarbów srebrnych na obszarze Słowiańszczyzny Zachodniej. Próba reinterpretacji znaczenia*, "Acta Universitatis Nicolai Copernici", Archeologia, 28, Nauki Humanistyczno-Społeczne, 349, pp. 59–97.
- Kowalewski Jacek. 2004. *Dlaczego, czy jak deponowano skarby we wczesnym średniowieczu?*, "Wiadomości Numizmatyczne", 48, 2 (178), pp. 181–191.
- Kubiak Stanisława przy współudziale B. Paszkiewicza. 1998. *Znaleziska monet z lat 1146–1500 z terenu Polski. Inwentarz*, Poznań.
- Modzelewski Karol. 1975. *Organizacja gospodarcza państwa piastowskiego X–XIII wiek*, Wrocław.
- Monety. 2013. *Monety i biżuteria z Ostrowa Lednickiego i okolicy*, eds. A. Tabaka, A.M. Wyrwa, Lednica.
- Moździoch Sławomir. 2006. *Refleksje na temat stanu wiedzy archeologicznej o śląskim wczesnym średniowieczu*, [in:] *Stan i potrzeby badań nad wczesnym średniowieczem w Polsce — 15 lat później*, eds. W. Chudziak, S. Moździoch, Toruń–Wrocław–Warszawa, pp. 189–206.
- Nakielski Witold. 2013. *Mennictwo polskie końca XI i początku XII wieku. Stan badań, problemy i propozycje*, "Warszawski Pamiętnik Numizmatyczny", 2, pp. 41–76.

- Nowakowski Dominik. 2017. *Śląskie obiekty typu motte. Studium archeologiczno-historyczne*, Wrocław.
- Nowakowski Dominik. 2021. *Siedziby pańskie na Śląsku w świetle źródeł pisanych. Studium nad średniowieczną nomenklaturą*, "Przegląd Archeologiczny", 69, pp. 191–220, DOI: 10.23858/PA69.2021.2096
- Östergren Majvor. 1989. *Mellan stengrund och stenhus. Gotlands vikingatida silverskatter som boplatssindikation*, Theses and papers in archaeology, 2, Stockholm.
- Reyman-Walczak Bożena, Ilisch Peter, Malarczyk Dorota, Nowakiewicz Tomasz. 2013. *Frühmittelalterliche Münzfunde aus Klempoln*, [in:] *Frühmittelalterliche Münzfunde aus Polen Inventar*, 4, eds. M. Bogucki, P. Ilisch, S. Suchodolski, Warszawa, pp. 19–222.
- Siemaszko Jerzy. 2018. *Ewolucja i rozwój metody AZP z punktu widzenia praktyka*, "Kurier konserwatorski", 15, pp. 7–14.
- Suchodolski Stanisław. 1987. *Moneta możnowładcza i kościelna w Polsce wczesnośredniowiecznej*, Wrocław.
- Suchodolski Stanisław. 2003. *Kultowa czy ekonomiczna geneza skarbów epoki wikingów?*, "Biuletyn Numizmatyczny", 3 (331), pp. 185–196.
- Syty Maciej. 2015. *Monety zachodnioeuropejskie i nowożytny*, [in:] *Monety ze stanowiska nr 4 w Gieczu*, 2, *Katalog*, eds. T. Krysztofiak, A.M. Wyrwa, Biblioteka Studiów Lednickich, 33, B1, Fontes, 6:2, Lednica, pp. 59–315.
- Szczurek Tadeusz, Paszkiewicz Borys, Tabaka Arkadiusz, Bogucki Mateusz, Ilisch Peter, Malarczyk Dorota. 2017. *Frühmittelalterliche Münzfunde aus Grosspolen*, *Frühmittelalterliche Münzfunde aus Polen Inventar*, 1, eds. M. Bogucki, P. Ilisch, S. Suchodolski, Warszawa.
- Tabaczyński Stanisław. 1957. *Rozwój stosunków towarowo-pieniężnych w Polsce wczesnośredniowiecznej*, [in:] *Pierwsza Sesja Archeologiczna Instytutu Historii Kultury Materialnej Polskiej Akademii Nauk: Warszawa 5.V–8.V. 1955*, ed. W. Hensel, Warszawa–Wrocław, s. 280–282.
- Trawkowski Stanisław. 1962. *Geneza regionu kaliskiego*, [in:] *Osiemnaście wieków Kalisza. Studia i materiały do dziejów miasta Kalisza i regionu kaliskiego*, 3, eds. A. Gieysztor, K. Dąbrowski, Kalisz, pp. 7–51.
- Urbańczyk Przemysław. 2002. *Wczesnośredniowieczne skarby złomu srebrnego*, [in:] *Moneta mediaevalis. Studia numizmatyczne i historyczne ofiarowane Profesorowi Stanisławowi Suchodolskiemu w 65. rocznicę urodzin*, eds. R. Kiersnowski et al., Warszawa, pp. 209–224.
- Urbańczyk Przemysław. 2004. *Kto deponował skarby zdeprecjonowanego srebra i dlaczego? (polemika z krytyką Mateusza Boguckiego i Stanisława Suchodolskiego)*, "Wiadomości Numizmatyczne", 48, 2 (178), pp. 167–180.
- Wąsowiczówna Teresa. 1960. *Kalisz na tle wczesnośredniowiecznej sieci drogowej*, [in:] *Osiemnaście wieków Kalisza. Studia i materiały do dziejów miasta Kalisza i regionu kaliskiego*, 1, ed. A. Gieysztor, Kalisz, pp. 69–101.
- Wokół początków. 2016. *Wokół początków Kalisza. 60 lat Stacji Archeologicznej Instytutu Archeologii i Etnologii PAN w Kaliszu*, ed. A. Kędziński, Warszawa–Kalisz.
- Wyczółkowski Dariusz. 2021a. *Kaliskie kościoły we wczesnym średniowieczu*, [in:] *Atlas historyczny miast polskich*, 6, *Wielkopolska*, 1, *Kalisz*, eds. U. Sowina, T. Panecki, Toruń–Warszawa, pp. 31–37.
- Wyczółkowski Dariusz. 2021b. *Średniowieczny kościół Świętego Wojciecha na Zawodziu w Kaliszu — badania i interpretacje*, "Kwartalnik Historii Kultury Materialnej", 69, 2, pp. 143–160.
- Wyczółkowski Dariusz, Kędziński Adam. 2016. *Przez Kalisz droga na północ*, [in:] *Wokół początków Kalisza. 60 lat Stacji Archeologicznej Instytutu Archeologii i Etnologii PAN w Kaliszu*, ed. A. Kędziński, Warszawa–Kalisz, pp. 121–133.