

## A PRELIMINARY ARRANGEMENT OF POMERANIAN COINAGE FROM THE 11<sup>TH</sup> AND EARLY 12<sup>TH</sup> CENTURIES

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**Abstract.** Researchers knew about the existence of the 11<sup>th</sup>-century Pomeranian coinage back in the 19<sup>th</sup> century. The basic source is a large hoard from the village of Łupawa (Lupow) near Słupsk, consisting mostly of imitations. The term “Łupawa imitations” has been in use in numismatics, to which – over the last 100 years – various authors have included all kinds of “barbaric” coins. The author presents a new concept for dividing the 11<sup>th</sup>-early 12<sup>th</sup> century coinage into six smaller groups. The oldest mint may have operated in Wolin which, however, collapsed in the first half of the 11<sup>th</sup> century. At the same time coinage started in Budzistowo, where it continued throughout the 11<sup>th</sup> century. In the second half of the 11<sup>th</sup> century, a second mint was established – probably in the vicinity of Słupsk, where both silver and copper coins were made. The mint, producing sub-value copper coins in the late 11<sup>th</sup> and the early 12<sup>th</sup> century, was located probably in Gdansk.

**Keywords:** Early Middle Ages, Viking Age, Pomerania, coinage, imitations.

The existence of 11<sup>th</sup> century Pomeranian coinage was known by researchers already in the 19<sup>th</sup> century (Dannenberg 1893; 1896). The turning point was the discovery of a large hoard of coins near the village of Łupawa (Lupow) near Słupsk (Fiala 1916, pp. 98-126), consisting mostly of imitations. Since then, the term ‘**Łupawa imitations**’ has been in use in numismatics, to which various authors over the last 100 years have included all kinds of ‘barbaric’ coins. However, apart from establishing the existence of this type of coinage, no significant progress has been made in understanding the reasons for its undertaking, scale and nature. The discovery of several sets of Łupawa-style coins in recent years, including a reconstruction of the Łupawa hoard based on collections in Berlin, Hannover, Copenhagen, Moscow, Cambridge and Szczecin (FMP II.136 and two coin collections, published at the FMP as Pomerania XV and Pomerania XVI hoards: FMP II.287, 288; cf. Horoszkowski 2021, pp. 435-456) and published inventories of early

medieval hoards from Pomerania (FMP II – Horoszko et al. 2016) and other Polish lands (FMP I – Szczurek et al. 2017; FMP III – Gorlińska et al. 2015; FMP IV.A – Reyman-Walczak et al. 2013; FMP IV.B – Butent-Stefaniak et al. 2013; FMP V.A – Bogucki et al. 2016a; FMP V.B – Bogucki et al. 2016b), opens new perspectives in the study of Pomeranian Coinage in the early Middle Ages.

Current studies of West Slavic imitation coinage show, that we are able to distinguish at least two regions where this type of coinage was produced, differing from each other in copied patterns, style of dies, chronology and the so-called general ‘coin fabrication’. These regions are Greater Poland and Pomerania (Bogucki 2012a, pp. 111-126). Admittedly, there are some indications of the functioning of this type of coinage in Silesia (Bogucki 2012b, pp. 85-110) and Mazovia (Bogucki 2014, pp. 135-146), but these require further, more detailed studies.

The Pomeranian Łupawa imitations, although known in the literature for more than a century and discussed several times (Fiala 1916, pp. 98-126; Kiersnowski 1960, pp. 232-238; Piniński 1998, pp. 49-59; Ilisch 1990a, pp. 7-13; Elfver 2008, pp. 20-25; 2011, p. 67; Paszkiewicz 2012, pp. 127-142; Bogucki and Magiera 2015, pp. 119-128; Rębkowski 2020, pp. 77-87), have not lived to see a satisfactory summary to date. The following text will not be one either, but I will try to present a preliminary characterisation of Pomeranian coinage in the 11<sup>th</sup> century. The basis for consideration will be the reconstructed hoard from Łupawa (Fiala 1916, pp. 98-126; Kluge 1986, No. 34; Horoszko 2012, pp. 325-328; 2021, pp. 435-456; FMP II.136, 287, 288), Gliszcz (Kiersnowscy 1959, No. 41; FMP II.68), Gralewo I (Kiersnowscy 1959, No. 46; FMP II.75) and several minor hoards and single finds from Pomerania, Greater Poland, Mazovia and even Silesia and Lesser Poland. In total, 4945 coins were recorded, of which only about one-fifth are available for study, a large proportion of which have been documented photographically. The full arrangement of this collection is still far from complete, but already at this stage it has been possible to identify some interesting groups of coins that shed new light on the nature of 11<sup>th</sup>-century Pomeranian coinage.

One of the main problems is to determine which of the large group of early medieval imitations are Pomeranian. Identifying the location of pre-modern era mints is usually based on their names in legends, or an iconographic depiction referring to the location – e.g. the cathedral patron, the city coat of arms, etc. And although it would seem that the presence of such data leaves no room for doubt, deeper studies show that even the existence of such data is not always unambiguous, as several mints – royal/ducal, episcopal, monastic and municipal – may have operated in a single locality. On the other hand, there are known cases where the local name mentioned on the coin does not refer to the location of the mint, but to the administrative place. Many examples of such inconsistencies between the information on coins and the facts have been collected and analysed by Professor Stanisław Suchodolski (2012, pp. 50-68). The conclusion that emerges from these observations is that the data contained on a coin is not always reliable.

It is a completely different situation when there is no or incomplete data on the coins, which is a common case in the Early Medieval European coinage and a rule in Pomerania – no 11<sup>th</sup>-century Pomeranian coin bears a local name or a representation indicating the place of production. In such cases, there are several methods of establishing mint production sites, the vast majority of which are speculative and, with one exception, do not make it possible to establish this indisputably. In principle, the only way to establish with certainty the place of production of such coins is through the physical discovery of a mint workshop with its equipment during archaeological works. Such cases, however, are extremely rare. So far, early medieval mints have been documented in this way at, among others, Northumbrian York (Pirie 1986, pp. 33-41) or Swedish Sigtuna (Malmer, Ros and Tesch 1991). In addition, it has been possible to identify a few counterfeit mints, which, however, were usually located far from large centres of power (Piniński 1968, p. 588; Janocha and Lachowicz 1973; Gomzin and Gaidukov 2019, pp. 402-410). Very rarely do we find information about the functioning of a mint in the early Middle Ages in written sources. For the 10<sup>th</sup> and 11<sup>th</sup> centuries, the few such cases refer almost exclusively to the territory of the Carolingian Empire and later areas of the German Reich (Kluge 2007, p. 29) and completely lack such for Poland and Pomerania. In other cases, one has to rely on classical archaeological methods – analysis of chronology and distribution – and compare the results with archaeological data and the few historical sources of general character. The main assumption of such analysis is the presumption that coins were produced in the main centres of power at a given time, although we know from other data that this was not necessarily true (Bogucki 2020, pp. 203-210). And while we will use the term mint in this paper, it will not in fact refer solely to the actual minting workshop, but should be understood as a term for the entire set of related phenomena – from the actual minting workshop, to the officials overseeing the work, to the logistics of distributing the finished products. Although more often than not all these functions were closely linked and carried out by a small group of people and located close to each other, their real separation cannot be ruled out. In the light of the available sources, there is no indication whatsoever that they were necessarily combined or separated, and they will therefore be collectively referred to as the ‘mint’. The application of the classical archaeological method of analysing the distribution of finds encounters a certain inconvenience in our case, as almost all the coins of interest to us were discovered in only a few hoards – above all in Łupawa (FMP II.136, 287, 288), Gralewo I (FMP II.75), Gliszcz (FMP II.68), Stojkowo (FMP II.197) and a few minor ones. Thus, the distribution of finds is almost identical for the different coin groups.

On Polish coins from the 10<sup>th</sup> and 11<sup>th</sup> centuries we find local names such as Gniezno, Mogilno, Kraków or Poznań (Suchodolski 1967, pp. 112-114, 127; 2023, pp. 1-32). Other mints, e.g. Giecz, Kalisz, Płock, are not known from coins or written sources and their functioning has been established as a result of analyses of

numismatic and archaeological finds (Suchodolski 2015, pp. 84-85; Kędzierski 2005, pp. 23-38; Bogucki 2014, pp. 135-146). The situation is much more difficult in Pomerania, where there are no records of any mint from the 10<sup>th</sup> and 11<sup>th</sup> centuries; moreover, until quite recently, there was no mention at all of 'Pomeranian coinage' at this time, only enigmatic mention of the so-called Łupawa imitations, treated more like a small sized, local and non-official production (Fiala 1916, pp. 98-126; Kiersnowski 1960, pp. 232-238; Piniński 1998, pp. 49-59; Ilisch 1990a, pp. 7-13). Only studies of the last dozen years have shown that in the 11<sup>th</sup> century, especially in its second half, there was regular coinage in Pomerania and, although by degree of organisation and scale it cannot be compared to German, Scandinavian or even Polish production, it was nevertheless there, it had its own characteristics and studies are slowly revealing its complex character (Elfver 2008, pp. 20-25; 2011, p. 67; Paszkiewicz 2012, pp. 127-142; Bogucki and Magiera 2015, pp. 119-128). Although a more complete identification of the oldest Pomeranian coinage still requires a lot of work, it has already been possible to formulate its preliminary characteristics and to distinguish the main coin groups. In the course of studies to date, it has been established that more than 10,000 Pomeranian coins have been discovered, most of which, unfortunately, are known only from literature. However, in the group of at least 4945 registered Pomeranian coins (list in the appendix, Fig. 22), it was possible to preliminary distinguish six main groups of coins. Let us therefore discuss them and consider their places of production, taking into account all available data, which in this case means first of all the analysis of chronology, their distribution and linking the results with archaeological finds and few written sources. But it should be noted at the outset that the scheme proposed below for the development of Pomeranian coinage, and in particular the indication of their places of production, is based on mere premises and has the character of a preliminary hypothesis, which probably reflects the state of research rather than the actual situation. As noted by M. Rębkowski, regardless of the places of production, Pomeranian coinage should be seen as a manifestation of the strengthening ducal power (Rębkowski 2020, pp. 77-78, 85-87).

It is difficult to determinate without doubt when the oldest coins were produced in Pomerania. It may have been as early as the 9<sup>th</sup> century. This can be evidenced by the finds of several false dirhams (copper core covered with a layer of silver) found at the emporium in Janów Pomorski/Truso (Bogucki 2008, pp. 209-236; FMP V.A.19A:821-822; 969-970). It is extremely difficult to determine where they were produced. It is most likely that they come from the areas of original dirham circulation, i.e. the Caliphate, or possibly one of the neighbouring states, e.g. the Khazar Kaganate. This is indicated by the reasonably correct style of the coins. However, their Scandinavian or local provenance cannot be excluded. The fact that dirham forgeries were made in the North is indicated by the discovery in the port of Hedeby of nine Hārūn ar-Rāšīd dirhams from Madīnat as-Salām dated 807/9, which were cast in tin and lead alloy in a single mould (Hovén 1990, pp. 171-176;



Steuer 2003, pp. 129-149). The concentration of so many products from the same casting mould in one place is sufficient indication to conclude that these counterfeit coins were produced in Hedeby. The forgeries found at Truso were made using the technique of plating the copper core with silver foil, so they differ from the forgeries from Hedeby. Whether the forged dirhams from Truso were produced in the Caliphate, Khazar Kaganate, Scandinavia or Pomerania, they are a manifestation of an attempt to deceive a counterparty rather than some local monetary policy. It is therefore difficult to consider them as Pomeranian coins.

### **Group 1. Pre-Łupawa coinage**

The production of coins in Pomerania in the 10<sup>th</sup> century is also uncertain. From the end of this century alone, five hoards are known in which, in addition to Arabic, German, Bohemian or English coins, some imitations were found. The oldest is a hoard from Wolin, hidden after 982 (Bogucki and Malarczyk 2014, pp. 291-318; FMP II.262), in which 2 fragments of coins imitating Bavarian patterns occurred. However, these are deniers produced rather in Bohemia or Silesia (Bogucki and Malarczyk 2014, p. 309, Nos 67-68; FMP II.262:67-68). In the hoard from Wicimice, hidden after 996, one forgery of a Cologne coin was found (FMP II.236:527). It already bears some features known from later West Slavic imitations, typical for the first decades of the 11<sup>th</sup> century. Whether this single coin was produced as early as the 10<sup>th</sup> century or whether it may be one of the youngest in the assemblage (totalling more than 500 coins) is a difficult question. In the context of the entire hoard, I believe that this is a 10<sup>th</sup>-century coin, but produced within the Reich as a simple forgery. No details are known about the imitation of a Cologne denier from the Rybice hoard, hidden after 983/5 (FMP II.174:152). In a hoard from Słupsk, hidden after 990, one imitation was found, which bears only parallel and perpendicular lines arranged in irregular squares (FMP II.185:2549). Unfortunately, it is impossible to find a pattern for this coin, and the drawing does not allow for a stylistic analysis. More promising is a set of three whole coins and three fragments from the Garsk II hoard, hidden after 996 (FMP II.43:425-430). These are imitations of popular German coins, from Cologne, Saxony and Bavaria. While some of them may still have been made in the Reich, at least two and perhaps all three are already so barbarized that they can hardly be considered as German unofficial side-product. I believe that they were minted at the turn of the 10<sup>th</sup> and 11<sup>th</sup> century already in Slavic lands. Since these would be some of the oldest imitations from the Oder and Vistula basins in general (and therefore there is lack of comparative material for them), it is difficult to assess unequivocally whether they originated in Pomerania or in another region. The Saxon (Otto and Adelaide), Frankish and Bavarian patterns used were mainly dominant in Greater

Poland in the later period. Hence, it is impossible to consider them unquestionably as Pomeranian products, although this possibility should not be excluded.

Slightly more, only 7 hoards with imitations have been recorded from the first quarter of the 11<sup>th</sup> century. The hoard from Miastko, hidden after 1009, contained one imitation of an Æthelred II penny (FMP II.139:660). However, it is a relatively well-made imitation and should be considered as originating from Scandinavia. Finally, a larger number of imitations were found in the Kamieniec hoard, hidden after 1010 (FMP II.98:79-253, 381-382). Unfortunately, this find is poorly studied and it is only known that among the 175 Otto and Adelaide deniers there were a number of imitations and that two imitations of the Æthelred II occurred. The first decade of the 11<sup>th</sup> century is the period when Otto and Adelaide imitations were already relatively common in Greater Poland (Bogucki 2012a, pp. 111-126), hence their appearance in Pomerania too is not surprising. Unfortunately, the lack of drawing or photographic documentation of coins from the Kamieniec hoard does not allow us to determine whether there were any coins that could be considered Pomeranian. We encounter a similar problem of lack of documentation in the case of the hoard from Smóldzino, t.p.q. 1015, where one cross denier imitation was supposed to have been found (FMP II.187:4). The first well-documented assemblage with imitations is a small hoard deposited in a pouch in grave No. 444 at Kałdus, after 1018. Among the 16 coins there were three imitations – a Cologne type one, a cross denier type II and one unspecified coin (FMP II.93B:10-12). While the imitation of the Cologne denier and the cross denier is well known from other finds (Cf. Dbg. 1785; FMP IVA.46:565-566) and should rather be associated with Greater Poland province, the half of a coin with lines and a legend imitating those of the cross deniers has no equivalent in finds from the south. Hence, its Pomeranian origin becomes quite probable, although attention should be paid to the peripheral (from the Pomeranian point of view), location of Kałdus. In the hoard from Karznica, hidden after c. 1020, one imitation of Otto and Adelaide type denier occurred (FMP II.109:13), of rather Greater Poland origin. In contrast, a hoard of over 500 coins, hidden after 1021, was discovered at Bierzgłowo, which contained as many as 28 imitations (FMP II.10:515-542). Significantly, these were already relatively diverse, with 16 ‘barbarian’ coins identified, 8 Otto and Adelaide imitations, one imitation of a Bohemian denier and 3 imitations of Æthelred II’s pennies. But the very fact of the occurrence of various imitations in a hoard so relatively early allows us to guess that at least some of them were of local origin. The only question is whether these coins should be attributed to Pomerania or perhaps to Kuyavia. At this point it should be recalled that it is there that Borys Paszkiewicz probably rightly sees the place of production of the CRVX-type penny known from the Raciążek hoard (Mikołajczyk 1985b, pp. 57-61; Paszkiewicz 2006, pp. 251-268, Taf. 35-38; Bogucki 2020, pp. 206-207; FMP III.129:84-87).

There are almost no doubts about the Pomeranian origin of the coins discovered in the Budzistowo II/III hoard, hidden after 1023, in which at least 23 imitations



Fig. 1. Imitations from the Budzistowo II/III hoard (FMP II.16B:30, 32, 40)

have been identified (FMP II.16A:45 and 16B:30-51). More than half of these are based on Otto and Adelaide deniers (Fig. 1). This time, however, they are stylistically quite different from the imitations of Otto and Adelaide typical of Greater Poland (Bogucki 2012a, pp. 111-126). Therefore, they could be considered among the oldest attested Pomeranian coins.

The second quarter of the 11<sup>th</sup> century opens with a hoard from Dobrociech, hidden after 1025 (FMP II.36:7-10). Unfortunately, 4 imitations of English coins from this find are not further identified. A hoard was found in Luzino, hidden after 1030 (FMP II.131:32-33), in which two imitations were identified, whose Pomeranian origin is no longer in doubt. While the first one is faintly legible, the second one clearly shows a small cross, similar to the English and Saxon ones, while on the reverse there is a double-stranded cross of the Long Cross type. In the rim, signs and pseudo-litres already typical of Pomeranian imitations appear. Finally, 5 imitations, which, due to their style, could be attributed to Pomerania, occurred in both hoards from the Mazovian village of Zakrzewo (t.p.q. 1015/1020).

From the presented juxtaposition of finds and their chronology, it can be seen that the beginnings of Pomeranian coinage can be dated to the first quarter of the 11<sup>th</sup> century. It can also be seen that the oldest Pomeranian imitations are few in number and, on the basis of their occurrence, it is impossible to indicate a more precise place of their production. It seems that, as in Greater Poland at the same time, they were created independently in different centres of a rather unofficial character, and the production itself was incidental and very few in number.

In the hoard from Runowo Krajeńskie, which was hidden after 1035, there were 7 imitations, which seem to mark the beginning of the functioning of the imitations described as 'Łupawa style' – they are both imitations of Bohemian and English deniers, but imitations of cross deniers predominate (FMP II.172:132-138). From a similar period comes a hoard from Stary Chwalim, which was hidden certainly after 1027, most probably after 1040. Among 228 coins there were as many as 60 imitations (FMP II.194:149-208). This hoard is particularly significant, as it is one of the oldest deposits with a well-documented series of imitations that can be attributed to Pomerania (Fig. 2). At this early stage, they can still be relatively easily divided into several basic and yet not particularly mixed groups: Cologne type coin imitations, Otto and Adelaide imitations (clearly different in style to the



Fig. 2. Pomeranian imitations from the Sary Chwalim hoard (FMP II.194)

Greater Poland imitations), cross deniers imitations (types V-VI, with a simple or pearl cross), Bavarian coin imitations, Anglo-Scandinavian type imitations (mostly Danish). It is significant that the obverses and reverses of these imitations are usually consistent with the originals. In the later period, it was very common to mix up designs from territorially and typologically different coins – e.g. one side imitated a cross deniers, the other an English penny, and so on.

Around the middle of the 11<sup>th</sup> century, as many as nine hoards were hidden in Pomerania, containing numerous imitations that often make up the bulk of the deposit. Whether dating such hoards on the basis of the few foreign coins is accurate is a matter for debate. After all, the local imitations may, quite understandably, have been the youngest component of the deposit. On the other hand, older coins may also have been included, dating as far back as around 1020-1050. Attempting to sort out all the material from these nine deposits is a challenge beyond the framework adopted for this sketch. Nevertheless, I will try to discuss them briefly and provide a preliminary interpretation.

The first hoard was discovered in the village of Gliszcz. According to German coins, it was hidden after 1047. This time, imitations constituted the vast majority in it – out of 315 recognised coins, there are as many as 298 imitations (FMP II.68:16-313). At the cemetery in Kaldus, in grave No. 210 a set of 168 coins, among which there were also 6 imitations, were placed as a grave good (FMP II.93A:92-97). The hoard from the village of Płocko, hidden after 1048, contained

10 imitations (FMP II.159:402-411). A considerable number of over 160 imitations, out of 320 total, was provided by the hoard from Galewo I, hidden after c. 1050 (FMP II:76)<sup>1</sup>. A relatively well-studied deposit, containing over 1,100 coins, including 43 imitations, is the hoard from Stojkowo, hidden after 1050 (FMP II.197A:163-172; 197B:478-510). There are also two further hoards from Pomerania, hidden after 1050, unfortunately it is not known from which localities. These are designated as Pomerania VI and Pomerania XI. The Pomerania VI hoard is 541 identified coins, including 27 imitations (FMP II.278:515-541). The Pomerania XI hoard contained over 400 coins, including 105 imitations (FMP II.283:298-402). As can be seen, especially the hoards from Gliszcz, Galewo I, Pomorze XI provide a huge number of coins for the study of Pomeranian coinage in the mid-11<sup>th</sup> century. Of course, many of them are more or less legible fragments, some of them were not minted in Pomerania, nevertheless it is a huge source base. It is not possible to analyse them in the present text, but even a short look at the material allows some preliminary conclusions to be drawn.

First of all, it is necessary to try to identify from this huge group of coins those which are the oldest. Unfortunately, the prototypes of the two most numerous groups of imitations – i.e. the Otto and Adelaide type deniers and the cross deniers – are dated only roughly, so they are not particularly suitable for such an analysis. The Bavarian or Cologne patterns are also relatively standardised and, without preserving the names of the rulers or repeating some details of the originals, are difficult to date. On the other hand, imitations of Bohemian coins may provide us with certain data. Among them, imitations of Bretislav coins from 1035-1050 are predominant (Fig. 3). Of course, Bretislav deniers may have remained in circulation for a long time and may have been imitated as late as the 3rd quarter of the 11<sup>th</sup> century, but it seems more likely that they were issued during their most intensive circulation, i.e. during Bretislav's reign. This is also evidenced by the fact that the imitations are double sided, without mixing other inspirations.

## Group 2. The 'pearly' style

The coins of greatest chronological value, however, are those inspired on the frequently changing Anglo-Saxon and Danish types. Particular attention should be paid to coins which, although imitating different patterns, were made in a single style, which I have already described in the literature as 'pearly' style (Bogucki and Magiera 2015, pp. 119-128).

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<sup>1</sup> During the preparation of the FMP inventories, access to the coins was not possible. Currently, the entire hoard has full photographic documentation, but its analysis requires a separate study. The dating seems more like c. 1050.





Fig. 3. Pomeranian imitations of Bretislav I coins from the Gralewo I hoard  
(Photo by J. Magiera)

The dies for these coins are characterised by a specific style, significantly different to Scandinavian coinage. Their distinguishing features are letter-like characters, which, however, do not form any inscriptions, a flat die engraving and the use of numerous dots as decorative elements. To this group belongs the hybrid of the types of Æthelred II and Cnut the Great, described by B. Malmer (1997) under No. 939.1628. The obverse die No. 939 depicts a bust modelled on the Long Cross type (997-1003) of Æthelred II, but with added cross/sceptre that appears on the Pointed Helmet type (1023-1029) of Cnut the Great, indicating that it was created much later, especially as the reverse die No. 1628, is modelled on the Helmet type (Fig. 4). These coins are relatively rare and few have a finding metric. These few include two specimens found in the hoard from Gralewo I (t.p.q. 1035?, c. 1050) (FMP II.75) and five from Łupawa (t.p.q. 1083/1120) (SCBI 36:1128-29; FMP II.136.239, 722-723; FMP II.288:1730-31). In addition, several further specimens are known from the antiquarian market, without specific provenance (e.g. Spink 2001, No. EM0037; Künker 2013, Auction 232, No. 26; Niemczyk 2019, Auction 22, No. 1; WCN 2021, Auction 77, No. 85; Spink 2018, Auction 18012, No. 283). It is significant that no specimen has been recorded to date in finds from Scandinavia, making a Pomeranian provenance of this type very likely.

Another type made in this style are very rare coins, on the obverse imitating the Cnut the Great Quatrefoil type (1017-1023), while the reverse is modelled on the Cnut's Helmet type, almost identical to the reverse of the above-mentioned coin (Fig. 5). Only four specimens are known of this type – one, preserved fragmentarily, is in the Berlin collection and comes from the Łupawa hoard (SCBI 36:1060; FMP II.136:722). The second comes from the same hoard and is in the collection of the National Museum in Szczecin (FMP II.288:1583). The third is known from the antiquarian market (Spink 2001, p. 392, No. EM0041). The fourth



Fig. 4. Pomeranian hybrid of Long Cross and Helmet type from the Gralewo I hoard  
(Photo by J. Magiera)



Fig. 5. Pomeranian hybrid of Quatrefoil and Helmet type (Stack's Bowers Ponterio 177, no. 34774)

was part of the collection of Vladimir Clain and Elvira Clain-Stefanelli (Classical Numismatic Group, Triton XVII, 2014, No. 1429)<sup>2</sup>.

A double-sided imitation of Cnute the Great's penny of the Pointed Helmet type (1023-1029) is also made in the 'pearly' style. Two specimens of such a coin occurred in the Gralewo I hoard (Fig. 6) and five in Łupawa (SCBI 36:1088-89; FMP II.136:1605-1609).

<sup>2</sup> Clain's collection began to form while the Second World War was still in progress and was expanded later in America. Although there is no evidence of this, the specimen in question probably comes from Łupawa (so described in the auction catalogue), from a lot that was resold after the war from the R. Gaettens collection. Coins from Łupawa from Gaettens collection found their way, among others, to the Fitzwilliam Museum in Cambridge (CNG 2014, p. 395).





Fig. 6. Pomeranian imitation of Cnute the Great's penny of the Pointed Helmet type from the Galewo I hoard (Photo by J. Magiera)



Fig. 7. Pomeranian Deventer-Anglo-Scandinavian hybrid (Künker 130, no. 2940)

Unusual are the busts images from a group of five coins, four of which come from the Łupawa hoard (SCBI 36:1071; FMP II.136:683, 1592-1594), while the fifth is from the De Witt collection (Künker 2007, Auction 130, No. 2940) (Fig. 7). The obverse depicts a head with a long beard, elliptical eyes, protruding ears and moody hair. The reverse features a Quatrefoil type cross. The coins are stylistically and technically somewhat reminiscent of the Long Cross and Helmet (Fig. 4), Quatrefoil and Helmet (Fig. 5) and Pointed Helmet (Fig. 6) hybrids mentioned above. The stubby head on the obverse is a representation that is difficult to identify, but it seems that the Deventer deniers of Conrad II (1024-1039) can be regarded as the prototype (Ilisch 1998, No. 1.11). Given the chronology of



Fig. 8. Pomeranian imitation of Cnut the Great's penny of the Pointed Helmet type from the Galewo I hoard (Photo by J. Magiera)



Fig. 9. Pomeranian (?) imitation of Anglo-Byzantine style (SCBI 36:1130. Photo by J. Magiera)

stylistically similar specimens, the Deventer-Anglo-Scandinavian hybrid in question can be considered to have been made in the 2<sup>nd</sup> quarter, or mid-11<sup>th</sup> century.

In addition, there are a number of coins which refer to some extent to the 'pearly' style, but it is difficult to assign them with full conviction to this stylistic and chronological trend, as among later Pomeranian imitations this predilection for the use of points and pearls persisted to some extent. For example, coins with double-sided crosses in the Anglo-Scandinavian type, where one of the crosses is surrounded by a garland of pearls, are found in hoards from Gliszcz (FMP II.68:213), Galewo and Łupawa (FMP II.136:384-385) (Fig. 8). Also noteworthy is a denier attributed to Sweyn Estridsen, type Hauberg 2 – Fleur-de-lis bust (in a style similar to the Aethelred II's Long Cross bust with cross/sceptre described above)/ruler standing with cross in Byzantine style (Hauberg 1900, p. 213, Tabl. VIII:2), which is known from the Łupawa hoard (Fig. 9) (SCBI 36:1132; FMP II.136:237). In the collection of the National Museum in Copenhagen there is an unpublished specimen without provenance, struck with the Hauberg 2 obverse, but with a different reverse die – which is a hybrid of the Long Cross and CRVX

types which raises the question whether this series is indeed Danish or perhaps Pomeranian.

When considering the provenance of the above-described series of coins, it should be emphasised that none of these imitations have been recorded to date in finds from Scandinavia, which, in light of the occurrence of these coins in finds from southern Baltic coasts, makes the Pomeranian provenance of this group quite probable. The analysis of the patterns and the chronology of the finds suggest that these coins were made between c. 1030 and c. 1050. It is difficult to pinpoint a specific place where they may have been made. However, I think that among several potential centres, Wolin should be considered above all. Admittedly, there is no direct or indirect evidence for this, but as I will try to show below, the central place at Kołobrzeg-Budzistowo may have been the site of production of a different series of coins at a similar or slightly later time. If interpreted in this way, these coins should have been produced before 1043, i.e. before the invasion of Wolin by Magnus the Good, which is immortalised by Adam of Bremen and some later Scandinavian sources (Morawiec 2010, pp. 291-349). Magnus' invasion probably sealed the downfall of the already weakening and losing importance of Wolin, although it is worth noting that archaeologists are not fully convinced of the destructive nature of this invasion (Stanisławski 2013, pp. 104, 282). Later, 12<sup>th</sup>-century Wolin was still an important place of ducal and ecclesiastical power (Rębkowski 2024b, pp. 418-420). Also J. Morawiec accepts also such a possibility that the vision of the burnt city could have been an expression intended to show Magnus' effectiveness, and that the actual destruction did not have to be so great (Morawiec 2010, p. 349). However, the lack of traces of burnt ramparts does not prove that this raid did not occur and that its effects were insignificant – it is not necessary to burn the emporium to the ground to stop its development. Of course, there is no certainty that, even in the heyday of the emporium, coins were minted there. However, if we are looking for such issues in the material we know, I would point the coins made in the 'pearly' style.

### **Group 3 – 'Zemuzil Dvx Bomeraniorum'**

Around the middle of the 11<sup>th</sup> century, a sizable group of die-linked, but stylistically strongly differentiated coins appears. In addition, in a few cases undisputed Pomeranian imitations are connected in die chains with regular Danish coins (Elfver 2008, pp. 20-25). In a separate text, I tried to show that a large proportion of these coins were struck for the enigmatic Pomeranian prince Siemomysl/Zemuzil (Bogucki and Magiera 2015, pp. 119-128), who, according to historians, may have reigned from c. 1040/41 to c. 1069/70 (Rymar 2005, p. 79; Sochacki 2007, pp. 74-92; Schmidt 2009, pp. 55-56). As the group of imitations and their interpretation have already been published (Bogucki and Magiera 2015, pp. 119-128),

I will only briefly present the most important conclusions here, while I will describe the coins themselves in chronological order. Coins belonging to the group attributed to Siemomysł are very diverse typologically and have been found in only a few Pomeranian hoards – in Łupawa (FMP II.136:245-282; FMP II.288:329-331), Gliszcz (FMP II.68:16), Galewo I (FMP II.75) and Stojkowo (FMP II.197:163-164) and in two hoards on Bornholm – Tornegård and Frostegård (Galster 1980, p. 119; Steen Jensen 1992, pp. 206-207). In addition, one specimen occurred at Złochowice in Little Poland province (FMP IV.A.119.22). Another 11 specimens are known from hoards Pomerania VI (FMP II.278:515-519) and XI (FMP II.283:317-318). With the exception of a single coin from Złochowice, the finds are located in Western and Central Pomerania and nearby Bornholm, which strongly confirms their Pomeranian provenance, but does not directly indicate where they were produced.

A relatively early group of coins seems to be those included in the two die chains published by Peter Ilisch in 1990 (Fig. 10). These are mainly imitations of German and Danish coins, sometimes Hungarian. Analysis of the style and dating of the originals leads us to believe that these deniers were produced in the 1040s, and thus rather represent the beginning of Siemomysł's coinage.

Also from the beginnings of Siemomysł reign would be a hybrid, which has on one side a cross taken from the *arm-and-Sceptre* type of Harthacnut or Magnus

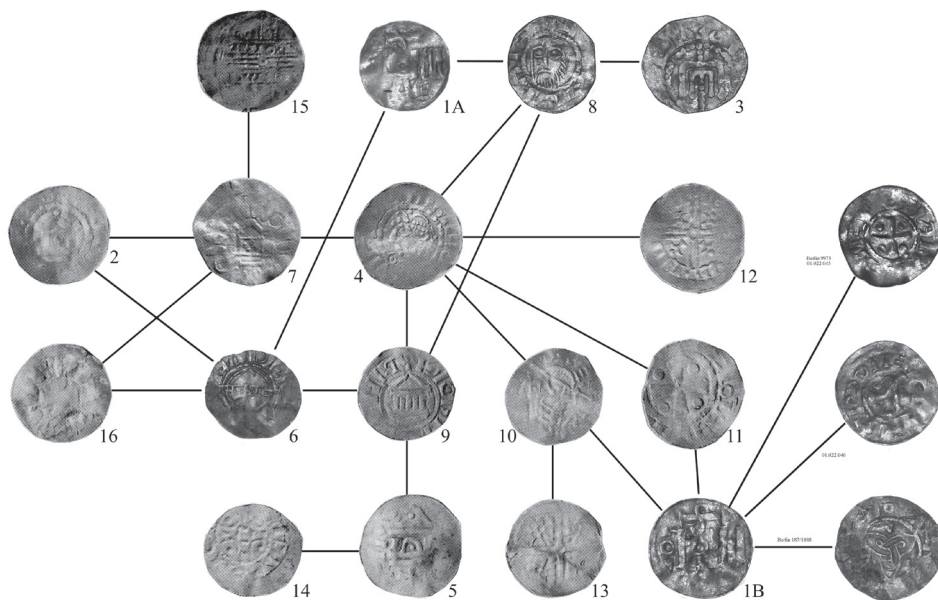


Fig. 10. 'Large' die chain of Pomeranian imitations (Ilisch 1990a)





Fig. 11. Die chain of coins attributed to Mieclaw and Pomeranian imitations (Bogucki 2014)

the Good (Fig. 11), and on the other side a cross of Otto and Adelaide type, which is well known and comes from coins attributed to Mieclaw, the self-proclaimed prince of Mazovia and an ally of the Pomeranians in the struggle against Casimir the Restorer (Bogucki 2012a, pp. 111-126; 2014, pp. 135-146)<sup>3</sup>.

### **‘Siemomysl after Magnus taking the Danish throne’**

In 2008 Frédéric Elfver published a die link containing Danish coins of Magnus the Good, Sweyn Estridsen from Lund, and typical Łupawa imitations (2008, pp. 20-25). He suggested that coin dies had been transported between Danish Lund and Pomerania (Fig. 12). Coins from dies of Pointed Helmet/Short Cross have been minted in Denmark, as well as in Pomerania. Some of them were struck evenly on rounded flans with centric hit. But coins from the same pair of dies were also produced in Pomerania – they were struck on irregular flans, often uneven and unstruck at the edges (Fig. 13). A similar phenomenon has been observed in other cases (see below). Coins which can be attributed to Pomerania have been registered in the Gralewo hoard (two specimens) and in the Łupawa hoard (at least eight examples). Other hoards containing those coins are not known, but additional specimens are registered in Russian collections. Those pennies were produced at the end of the reign of Magnus the Good (1042-1047) and the beginning of Sweyn Estridsen’s reign (1047-1076), as indicated by coins attributed to Estridsen in the Danish part of the chain.

The above examples of original Danish dies used in Pomeranian coinage are not the only one. A group of coins has been identified in the Gliszcz, Gralewo and Łupawa hoards, which form several die chains. In the first of these (Fig. 14), in addition to stylistically and qualitatively different dies imitating German coins, including Otto and Adelaide or cross deniers, we find original Danish dies for

<sup>3</sup> A similar coin, but from slightly different dies, was found in Gdańsk (Paszkievicz 2020, pp. 18-19).

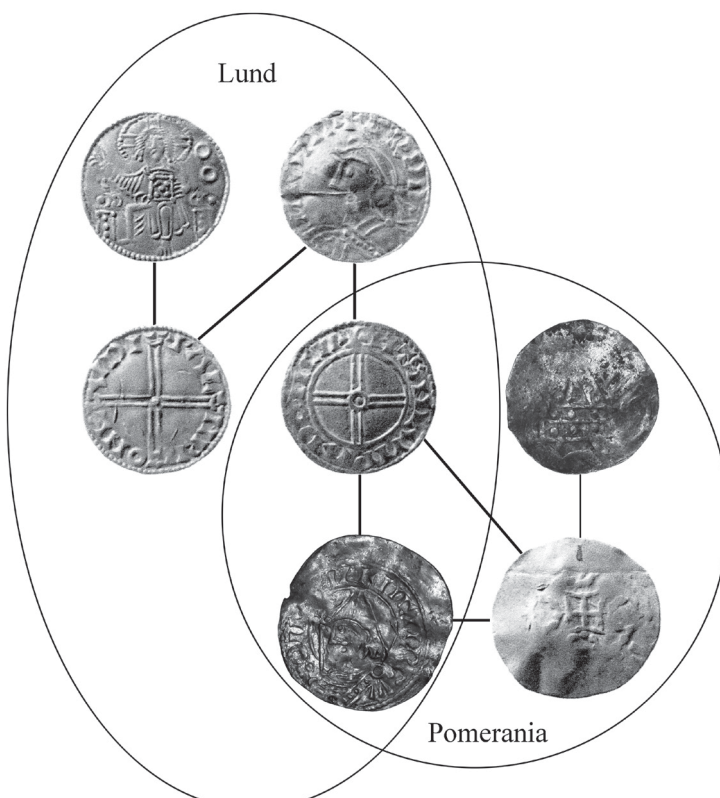


Fig. 12. Die chain from Lund and Pomerania (Elfver 2008 with additions)



Fig. 13. Two coins struck from the same pair of dies. Left: Magnus the Good (?), mint Lund.  
Right: coin minted in Pomerania

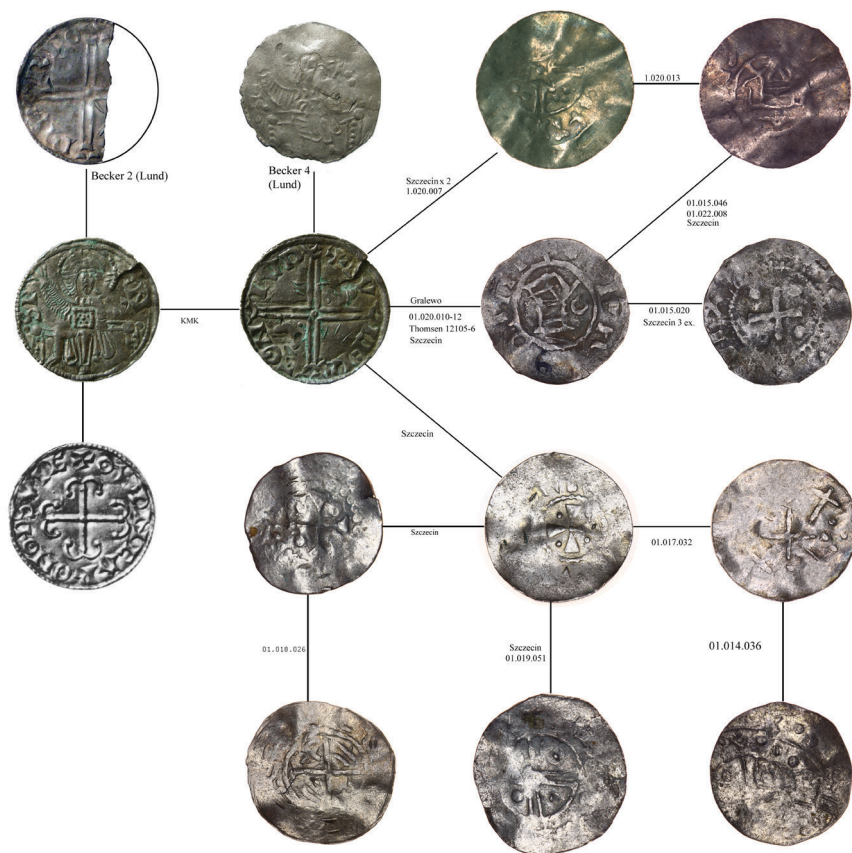


Fig. 14. Die Chain of Danish and Pomeranian coins (Becker 1985 with additions. Photo by M. Bogucki, J. Magiera, F. Elvfer). Coins with numbers are from the part of the Łupawa hoard, Niedersächsisches Landesmuseum in Hannover. Coins described as ‘Szczecin’ are from the Łupawa hoard, National Museum in Szczecin

Sweyn Estridsen, type Hauberg 6 (Lund) and 54 (Odense). The Odense die was transferred to Lund probably at the very beginning of Sweyn’s reign, when the new ruler closed the Odense mint (Becker 1985, pp. 175-178). The typical Slavic imitations from this die chain can be divided into two groups. Some of them, especially those of the cross deniers type, are made very correctly stylistically, while the rest are heavily barbarised. Stylistic differences aside, they all imitate coins older than the Sweyn Estridsen penny, and are therefore irrelevant for the dating of the group as a whole.

A third possible example of the transportation of Danish dies to Pomerania is a short die chain of Sweyn coins (Fig. 15), where an original Christ type (Hbg 6) obverse was linked with a crude imitation with cross and pellets (Hbg 27). All





Fig. 15. Sweyn Estridsen mule with Pomeranian (?) imitation (Photo by M. Bogucki, J. Magiera)

three known specimens are poorly struck (Elfver 2011, p. 68). The ‘Christ’ obverse is also linked to a proper Long Cross type reverse, but significantly this coin was found in the Łupawa hoard (FMP II.136:271).

Another group that has a slightly later chronology are the coins once recognised as Danish. In the monograph on Danish coinage, Peter Hauberg (1900) placed among coins of Magnus the Good two types which by style diverge from regular issues of this ruler. Under numbers 17 and 18 occurred coins struck with the same obverse die with a bust on the obverse and Colonia monogram on the reverse (no. 17) or a cross with dots between arms and blundered legends (no. 18). Walter Hävernick (1935, No. 176) described the Colonia monogram variant as an unrecognized imitation. Georg Galster (1980, pp. 110, 119) describing hoards from Frostegård and Tornegård in Bornholm, excluded them from Danish coinage, suggesting that they might be a product of Pomeranian provenience based on their presence in Łupawa hoard. His opinion was accepted by C.J. Becker (1981, p. 147). Frédéric Elfver (2005, p. 1175; 2011, p. 67) supported that attribution but with reservations. In addition to the Hbg 17 and 18 varieties, two other variants are known, struck with the same obverse die and different reverse dies (Fig. 16). To date, at least 15 specimens of coins from this die chain have been recorded (Bogucki and Magiera 2015, p. 15)<sup>4</sup>.

The obverse with a portrait of Magnus the Good in radiate crown (A) belongs to a well recognized MX type produced in Lund c. 1044-1046 (Becker 1981, pp. 131, 149). The reverse die with the Colonia monogram (1) creates a set with an obverse with cross with dots between arms and a blundered legend (B). So far all researchers writing about these coins looked to Colonia originals, however our

<sup>4</sup> Noted by F. Elfver (2011, p. 67) specimens from J. Żak description probably never existed and/or were wrongly described by the latter. They were supposed to be a part of Pomerania VI hoard (Żak 1963, p. 61, No. 80; 1968, pp. 279-285, No. C.1) and Dąbrowa hoard (Żak 1963, p. 98, No. 140). They were not listed in ‘Polskie Skarby Wczesnośredniowieczne’ (Kiersnowscy 1959, Nos 235 and 21), nor by Peter Ilisch, who examined Pomerania VI hoard (Ilisch 2013, pp. 337-344).

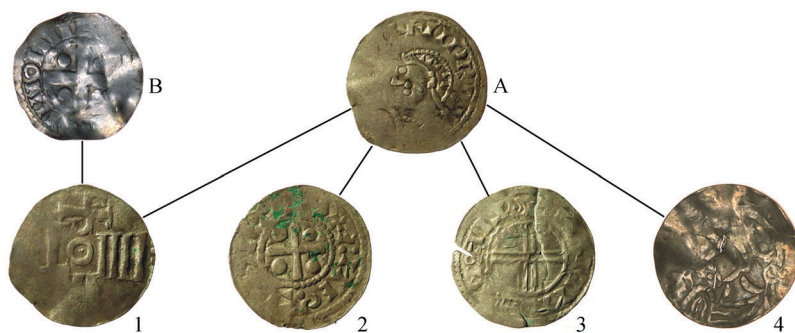


Fig. 16. Die chain of Hauberg 17 and 18 type pennies (Photo by M. Bogucki, J. Magiera)

attention should be drawn to the fact that dies B and 1 reflects imitations of Colonia type coins minted in Soest, distinguished by small 'O' letters, often with a dot inside and large letters of IIII, and a strongly curled uppercase 'S' letter with serifs. They occurred already at the beginning of the 11<sup>th</sup> century, but they were produced in larger numbers in the second quarter of this century (Hävernicks 1935, Nos 73, 849-850, 856-864; Ilisch 1990b, pp. 142-143, Abb. 19-20). Reverse die no. 3 has faithfully copied English and Danish pennies of Short Cross type. This type occurred during Cnut the Great's reign and was struck in the years 1029-1035. It was also very popular on Magnus the Good and Sweyn Estridsen's coins. More difficulties arise in attempting to describe the prototype of die no. 4 with the bust on the left. Undoubtedly, it can be attributed to Anglo-Saxon or wider Anglo-Scandinavian origins. The drawing may be based on strongly barbaric reproductions of Helmet type pennies of Æthelred II (1003-1009) or of the Fleur-de-lis type struck for Harold I (1038-1040). Considering the chronology of other prototypes the second possibility is more convincing. In the light of the chronology of the hoards (t.p.q. 1047) and prototypes (second quarter of the 11<sup>th</sup> century, after 1029, after 1038, after 1044) we can be fairly certain about dating the abovementioned die chain to c. 1045-1050.

The attribution of these coins to Magnus the Good coinage was not supported by even a cursory study – it was based solely on the identification of 3 specimens from the Bornholm hoards and the similarity of the die A to regular Magnus' issues. More likely is the attribution of these coins to the Pomeranian coinage. With at least seven examples from Pomeranian hoards (and one from an unknown hoard from Poland) out of eleven pieces of known provenience, and fifteen examples known in all, this attribution is clearly the most convincing one.

Being aware of hypotheticality of the thesis of Siemomysł's coinage, I have proposed a further division of this still large group of coins into smaller sets. The basis for such a division is the thesis Zemuzil and Siemomysł were one person

(as a result of which another thesis can be put forward – that die engravers from the Germany were drawn to Pomerania, which is reflected in the production of cross deniers in Pomerania using original or very well-made dies, but unlike Saxon coins, struck on flat flans) and the thesis of Siemomysł's alliance with Sweyn Estridsen in the struggle for the throne against Magnus the Good. There is no doubt that these assumptions are hypothetical and extremely difficult to prove, but I think that at the present stage of research they allow quite well to explain the observed phenomena in the numismatic material. More recent discoveries will probably verify the theses put forward here.

Based on the above assumptions, I considered that the coins included in the die chains, where the Danish dies are also found, should have been created around or after 1047, for it was only after Sweyn's conquest of the throne that Siemomysł was able to receive his redress, including the coin dies. These would therefore have been coins included in the Pointed Helmet/Short Cross die chain of F. Elfver, Becker II, Hauberg 17 and 18, Hauberg 27. Most of the other coins from the various die chains may have been created over a longer period, covering the whole of Siemomysł's reign.

### **Coins from the end of Siemomysł's Reign**

Similarly hypothetical attribution is the group of coins that may have been made during the final phase of Siemomysł's reign. Their dating is circumstantial and still will be to verification. There is a die chain, consisting of nine dies (Fig. 17), where, in addition to German (Otto and Adelaide, Bavarian and other designs) and Hungarian patterns, there are two relatively correctly made imitations of Danish coins – the central position in the chain is occupied by the reverse of a denier of Sweyn Estridsen from Lund, type Hauberg 18/25 (Long Cross with marks). The other is the obverse of Sweyn's coin with the hand of God from Roskilde, type Hauberg 12 or rather 40-41. Both the prototypes and the style of the imitations indicate that these coins were made later, probably after 1050. As in the cases discussed above, the Danish-style coins are the youngest in the set.

In addition to those described above, there is a sizable group of coins in which patterns taken from English penny's – Short Cross and Cross and Danish of Cnut, Harthacnut, Magnus and Sweyn – are mixed with patterns in German type – notably Otto and Adelaide and cross deniers, which are extremely difficult to interpret. Based on the originals, they can be dated to around 1050-1075, which coincides with the years of Siemomysł's reign, but it is difficult to find arguments for attributing them to his coinage.

Considering the potential location of 'Siemomysł' coinage, one must first of all take into account the chronology of these coins, which basically excludes Wolin, which declined after the 'revanchist' attack of Magnus in 1043 (Morawiec 2010,

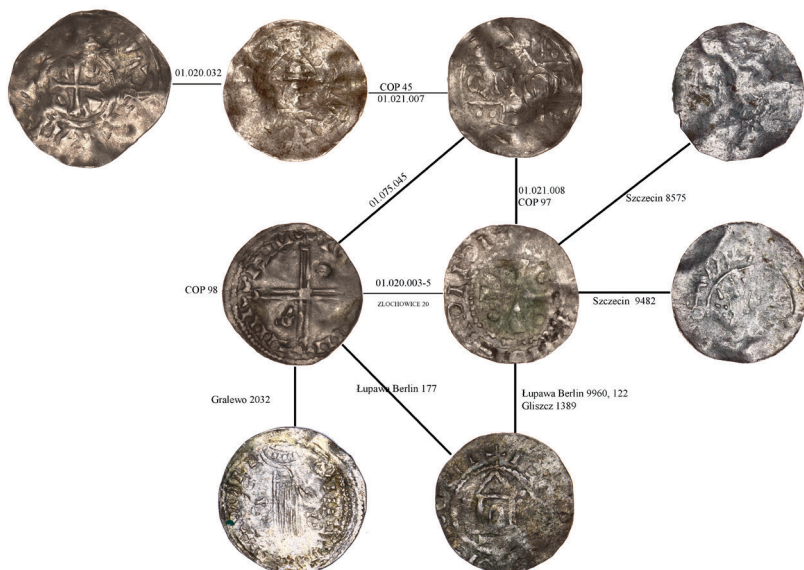


Fig. 17. Die chain of Pomeranian coins, imitating German and Danish deniers  
(Photo by J. Magiera)

pp. 291-349). In the mid-11<sup>th</sup> century Pomerania, the main centres of power were primarily the fortified town of Kołobrzeg (Leciejewicz and Rębkowski 2000a; 2000b; 2007), Gdańsk (Paner 2015, pp. 139-161), Szczecin (Kowalska and Dworaczyk 2011) and finally Kamień Pomorski (Filipowiak 1959; Stępiński 1975; Leciejewicz 1983, pp. 121-153; Rębkowski 2024a, pp. 28-48). Gdańsk can be excluded from this short list of potential mints without much doubt, as neither in the town nor in its close vicinity are almost completely lacking in finds of coins of interest to us. On the other hand, the centres in Szczecin and Kamień Pomorski only gained importance in the second half of the 11<sup>th</sup> century (Bogucki 2013, p. 353). From the list presented above, therefore, only the fortified town of Kołobrzeg remains, and although there is no direct evidence for this, it is the most likely place for the production of the imitations we are interested in.

#### Group 4. Siemomysł's legacy – the proper Łupawa imitations

Although the alleged reign of Siemomysł ended around 1070, Pomeranian coinage did not disappear. In the second half of the 11<sup>th</sup> century numerous and varied imitations were constantly being produced. However, their character gradually changed. While the older coins – starting from the 'Wolin' pearly style, to the

German and Anglo-Scandinavian imitations of Siemomysł, were classical imitations – i.e. they more or less successfully tried to repeat the originals, the actual Łupawa coinage are much more varied, strongly barbarized and bringing new original iconography, unknown from other coins (Fig. 18). Thus, on the one hand, they imitate quite popular motifs taken from Danish, German, sometimes even Bohemian or Hungarian coinage. But the predominant motifs are mainly imitations of late cross deniers. On the other hand, they present often difficult-to-interpret local designs, which are the own invention of local die engravers. Some of these original motifs appear to be an almost random combination of lines and dots, but in a few cases it is possible to guess that they reflected symbols important to the Pomeranians and were legible to them. Since these coins do not follow the well-known patterns, it is extremely difficult to date them. Although some of them are known from early hoards – Gralewo I or Gliszcz – we know them mainly from the Łupawa find. These late, ‘proper’ Łupawa coinage types are extremely numerous and it is impossible to make a full analysis of them now. At the present stage of research, this group is in fact a collection of coins that could not be allocated to any other group. Moreover – the boundary between the deniers attributed to Siemomysł and the ‘proper’ Łupawa series is fluid – as a result of ongoing studies, especially on the die chains, some of these coins will probably change attribution. On the other hand, the great stylistic diversity indicates that coins from this group were produced not in one, but in many centres. Obviously, the most probable place of production of Łupawa type is Kołobrzeg, although other centres cannot be excluded as well. The central places of the future principalities – Białogard and Nakło – can be pointed out here. While the possible functioning of the alleged mint in Białogard is doubtful – as this centre is too close to Kołobrzeg and the two mints are unlikely to function simultaneously, the last proposal is particularly tempting, due to the fact that about 15 km in a straight line from Nakło, the Gliszcz hoard was found (FMP II.68) – one of the most important hoards containing Łupawa-type imitations.

On the other hand, the large accumulation of finds (hoards from Łupawa, Karwino-Wargowo, Stojkowo) in the Słupsk area may indicate that the main mint of the Łupawa imitations was located somewhere in this area. Such a location of the main mint of the Łupawa imitations was already suggested by Jerzy Piniński (1998, pp. 57-58; 2012, p. 124) and recently supported by M. Rębkowski (2020, pp. 86-87). The Słupsk central hillfort is a natural candidate here (Szczepanik 2016, pp. 139-150). The Słupsk settlement complex consists of a hillfort, a suburbium and several associated settlements and dates to the 11<sup>th</sup>-14<sup>th</sup> centuries. At the settlement No. 13 a relatively rich finds were discovered – bone comb, a sickle, a horse bit and a sword. The sword was most likely a piece of burial equipment. Słupsk was not mentioned in written sources until the middle of the 13<sup>th</sup> century, but the functioning of the St. Peter’s Church from around the middle of the 12<sup>th</sup> century in a place that had probably previously served as a centre of a pagan cult (a stone slab with





Fig. 18. A selection of Pomeranian imitations from the Łupawa hoard (Photo by J. Magiera)

an anthropomorphic representation is supposed to be a testimony to this) indicates that this settlement complex, poorly recognised archaeologically, must have played a significant role in Central Pomerania already in the 11<sup>th</sup> century.

Considering the location of a potential mint in the Słupsk area, we should not exclude the nearby Bytów, which, although archaeologically recognised only preliminary (Kajkowski 2010, pp. 138-149), was nevertheless a centre of big importance – it was mentioned by Gallus Anonymus when describing the conquest of Pomerania by Bolesław the Wrymouth. According to Gall, the count palatine Skarbimir conquered the town and brought out from there abundant prey and captives (Gall II, 31 – Grodecki 1989, pp. 98-99). Whether Skarbimir's success was real or exaggerated, Bytów must have been a significant centre in the minds of those of his time. Its early metric and importance is attested by a non-monetary hoard of luxury jewellery from the 10<sup>th</sup>-11<sup>th</sup> century (FMP II.21). The current state of archaeological recognition of Bytów does not allow us for placing it among the most important centres of Pomerania in the 11<sup>th</sup> century, but the preliminary and as yet unpublished results of excavations currently being carried out under the direction of Dr Paweł Szczepanik at the Bytów-Udorpie stronghold may significantly change this picture.

In conclusion, at the present stage of numismatic, archaeological and historical research, it is impossible to indicate where imitations of the Łupawa type could have been produced. It could have been either Kołobrzeg, but also Słupsk, Bytów or Nakło. It is also highly probable, given the typological diversity of this group

of coins, that there were many mints and each of the mentioned centres had a share in this production.

### Group 5. Metal quality decline – the Włynkowo type

In the second half of the 11<sup>th</sup> century, mostly cross deniers imitations of younger types, made of very weak silver or copper alloys, begin to appear. The appearance of coins struck in copper at this time is not an isolated phenomenon and has good parallels in almost the entire Baltic zone – from Mecklenburg, through Poland, Pomerania to Latvia and Estonia and even northern Rus' (Bogucki 2008, pp. 209-236; Wiechmann 2013, pp. 267-312; Mikhelson and Tarlakovsky 2019, pp. 175-188; Ushankov 2024, pp. 240-248).

The Pomeranian copper alloy coins are best known from the Włynkowo hoard on the Słupia river (FMP II.240:5-57). Their distinctive feature, which distinguishes them from other imitations/forgeries of cross deniers known from Kuyavia or Greater Poland (Bogucki 2008, pp. 209-236; Kędzierski 2024, pp. 227-232), is their manufacturing technique. The imitations from Włynkowo were produced on irregular, sometimes even slightly rectangular, copper flans (Fig. 19). Moreover, the flan cracks visible on almost every coin are evidence of the high hardness of the copper alloy used in production. Taking into account that the phenomenon of copper coinage was not isolated, and that similar processes occurred in a wide belt from Mecklenburg to Latvia and northern Rus' starting around 1070-1080, this phenomenon should also have a similar chronology in Pomerania. Further specimens of coins of this group may come from Budzistowo VI (FMP II.19:7), Kałdus VII (FMP II.92:7), Wolin XXIV (FMP II.264:2-4), Żółte (FMP II.272:3, 6) and Pawłówek II (FMP II.156; Chudziak et al. 2024, pp. 1061-1094). Assessing the time of their production it's important to notice, that a number of fine silver coins, features the same fabrication as the deniers from Włynkowo (e.g. FMP II.68:60, 160 = FMP II.240:15; 68:76 = 240:15, 18; 136:269 = 240:19; 136:614 = 240:43, 44; 136:666 = 240:24, 35). This indicates that both fine silver and copper-alloy coins were created at least partly in the same place, but copper alloy coins must have been created later than the silver ones. Taking into account local conditions, the succession of copper issues after silver ones, I am inclined to date the Włynkowo type imitations from around 1080 to around 1100. The rarity of these coins (and therefore their short and probably not very widespread circulation) and the place where the Włynkowo hoard was found could suggest that some of these coins may have been produced in the Słupsk area, which may be an argument supporting the location of the production of Łupawa and Włynków imitations in Słupsk/Bytów.

Finds from the stronghold at Pawłówek on the Noteć River deserve a closer look. A total of 49 coins were found there, of which 24 were various types of



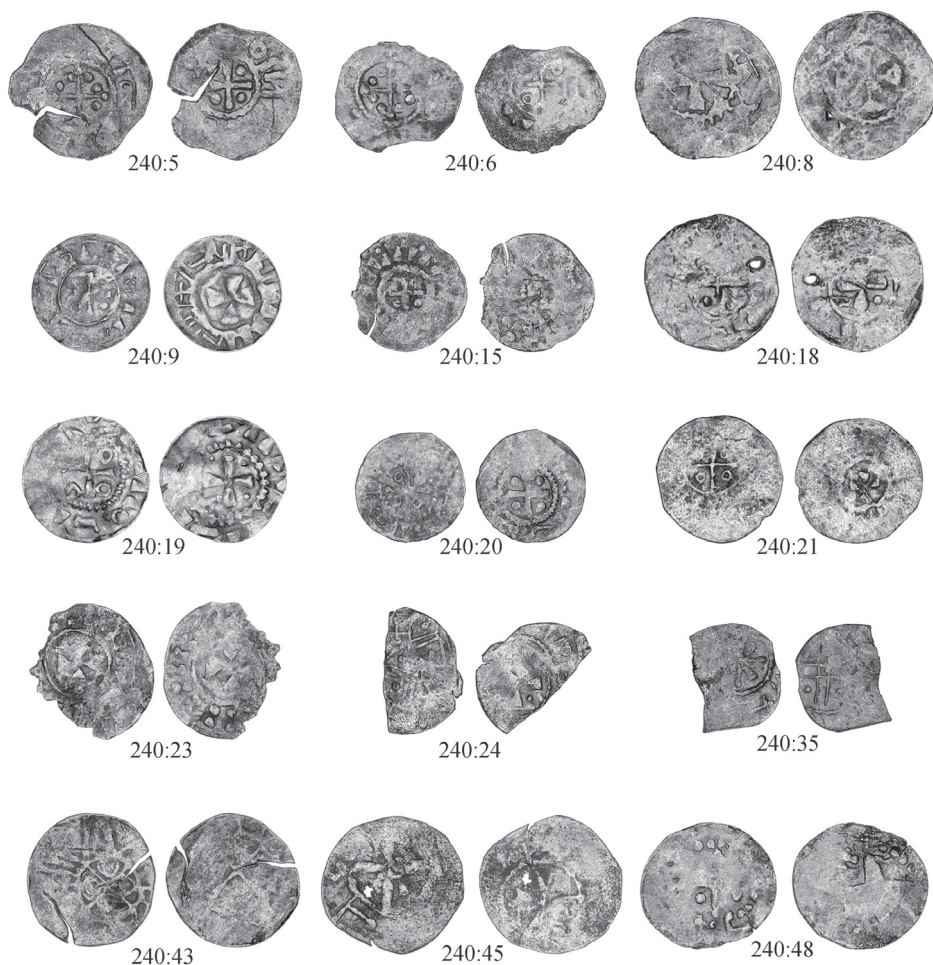


Fig. 19. Copper imitations of cross deniers from Włynkowo (FMP II.240)

copper-alloy coins. The fact that such a number of coins were found on an early medieval settlement, including many billon specimens, is an unusual phenomenon, being an argument for special significance of this settlement complex (Musiałowski 2012, pp. 108-111; Chudziak and Błędowski 2017, pp. 315-325). The authors of a recent study have described and analysed these coins in great detail (Chudziak et al. 2024, pp. 1061-1094), hence there is no need to repeat all the details. However, it should be noted that all 24 copper coins from Pawłówek were treated as a single phenomenon – forgeries<sup>5</sup>. And although the Authors are correct that the

<sup>5</sup> The exact nature of this coinage will be discussed elsewhere – Bogucki, Wadył, 2025, pp. 147-171.

production of copper coins/forgeries is a common phenomenon in the Baltic zone at the late 11<sup>th</sup> and early 12<sup>th</sup> century, it seems that it is not a unified phenomenon. The collection of coins from the Pawłówek settlement consists, in my opinion, of three main components: 1. at least 10 deniers of the Włynkowo type (Chudziak et al. 2024, Nos 29, 36, 28, 33, 35, 46, 31, 32, 38, 50; Fig. 6:b, c, e, f, g, h, i, k, l, w); 2. at least 4 deniers of the ‘Gdańsk’ type – see below (Chudziak et al. 2024, Nos 27, 30, 42, 41; Fig. 6:a, d, t, v); 3. three false cross deniers from the interior (Chudziak et al. 2024, Nos 47, 39, 37; Fig. 6:j, m, n). It is evident from the above that a further 7 coins escaped classification, mainly due to their poor state of preservation. It must also be acknowledged that the distinction between the three groups and their interpretation is not clear-cut. It is relatively easy to distinguish the last group – the stylistically correct forgeries of the late variants of cross deniers with raised edges. The fact that they occur mainly in Kuyavia and Greater Poland may suggest their provenience there (Mikołajczyk 1985a, pp. 21-28; Bogucki 2008, pp. 221-222). More troublesome is the distinction between the Włynkowo type and the somewhat different copper-alloy deniers known mainly from excavations in Gdańsk (Paszkievicz 2012, pp. 127-142). Perhaps one of the features is the difference in metal composition – while among the examined coins from Pawłówek that could be considered Włynkowo type, there are almost exclusively specimens made of brass (Chudziak et al. 2024, Nos 29, 36, 28, 33, 35, 46, 31, 32, 38, 50), among the coins of the ‘Gdańsk’ type there are also coins made of pure copper and bronze. However, this is only a preliminary observation requiring verification on a larger number of metal analyses.

#### **Group 6. The end of the age of imitations – debased copper coinage**

At the very end of the 11<sup>th</sup> and the beginning of the 12<sup>th</sup> century, copper alloy coins, imitating a variety of patterns, appeared (Fig. 20). These deniers were identified by Borys Paszkiewicz (2012, pp. 127-142; 2020, pp. 17-22), who, on the basis of an analysis of one small hoard (FMP II.53) and several single finds (FMP II.54) from Gdańsk and on the basis of historical studies by B. Śliwiński (2000, pp. 3-40; 2009) and E. Rymar (2005), suggested that at this time two centres – probably Białogard in the west and Nakło in the south – may have produced their own coins from very weak coin silver. Borys Paszkiewicz attributes some of these, mainly those made from the ‘yellow metal’, to the reign of Duke Świętopełk (1109-1013) and the mints in Nakło and Gdańsk (Paszkievicz 2012, pp. 127-142; 2020, p. 21). While not excluding such an interpretation, it must be stressed that the colour of the metal is influenced not only by its chemical composition, but also by the environment in which it has been deposited for several hundred years, or, finally, by the conservation methods. Therefore, without ruling out the possibility that several mints were in operation during the reign of Świętopełk, it seems

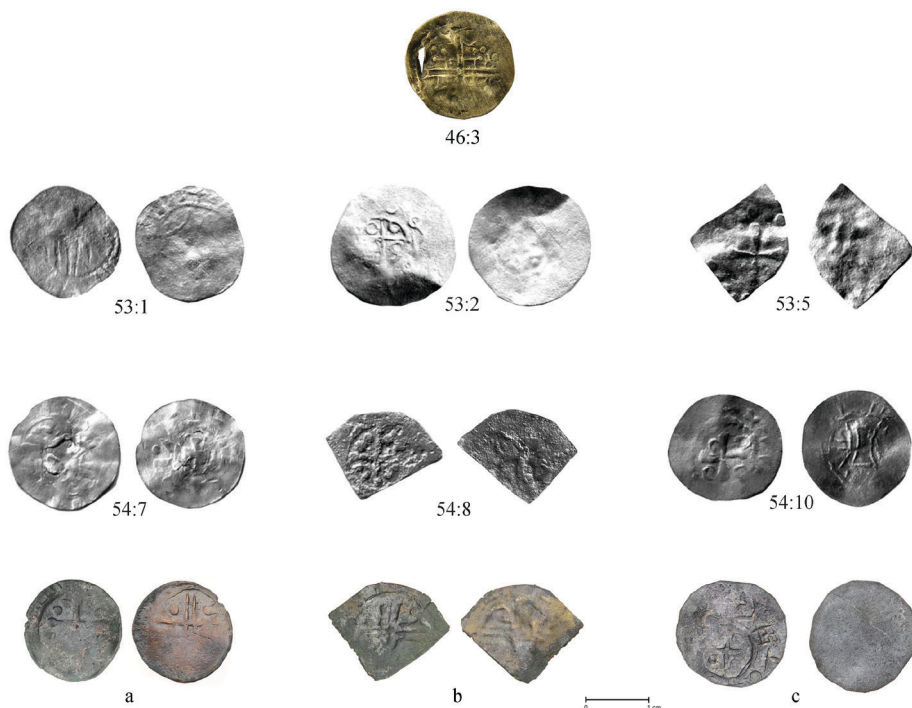


Fig. 20. Copper coins from Gdańsk (FMP II 46; 53-54) and Wilkowo (a-c: Photo by M. Jakubczak)

that separating the relatively small material on the basis of the colour of the etched metal is not justified.

Fortunately, recent years have brought new finds of this type of coins. The coins from Pawłówek should be mentioned at first (FMP II.156:21-48; Chudziak et al. 2024, pp. 1061-1094). As indicated above, there is a difficulty in distinguishing the Włynkowo type deniers from the later ones. At the present stage of research, it seems that while the Włynkowo coins are particularly imitations of cross deniers without raised edges struck on a hard metal flans, the 'Gdańsk' type imitations have a much richer iconography – we find Anglo-Saxon, Danish and perhaps Bohemian designs there, which to some extent brings them closer to the classical imitations of the Łupawa type (Paszkievicz 2020, p. 21). I am fully aware that these criteria are not clear and are difficult to apply to poorly preserved material. But even the evaluation of two well-preserved coins can vary depending on the context.

But the discoveries from Pawłówek are not the only ones made in recent years. An interesting set of single 5 copper coins was found in a cemetery in Wilkowo – Fig. 20:a-c (Bogucki, Wadył 2025, pp. 147-171). A single coin was discovered on

a settlement in Bytów-Udropole<sup>6</sup>, and further 2 specimens were found in Gdańsk itself<sup>7</sup>. Finally, a detailed inventory of finds from Pomerania, allowed us to pick up a few more specimens in old finds: in the Bonin hoard, there were 3+12 copper cross deniers (FMP II.12:1339, 2746, 2983, 4386, 4428-4438); graves Nos 41 and 78 in the Cedynia cemetery contained 2 copper coins, including one of the Otto and Adelaide type (FMP II.23:2-3); one unspecified copper coin occurred in Kaldus VII (FMP II.92:7); a single copper cross denier was found in Stargard II (FMP II.189:1); one copper-alloy cross denier was found in the Stary Chwalim hoard (FMP II. 194:208); one Cologne-type copper coin was identified in the Wicimice hoard (FMP II.236:527); one copper cross denier occurred in the Widuchowa II hoard (FMP II.238:83); one unspecified brass coin was found at Silver Hill on Wolin XXI (FMP II.261:6); four brass coins, including one imitation cross denier, were found on an island on Lake Zaranskie (village Żółte) (FMP II.272:3, 6). As mentioned above, in many of the above cases it is difficult to decide without doubt whether a coin is an imitation of the Włynkowo type or perhaps a later issue from the time of Świętopełk or finally a forgery from the interior. This issue undoubtedly requires further research, including analysis of the chemical composition (especially of deniers from the Włynkowo hoard).

Currently, we have access to the chemical composition of only coins from Pawłówek and deniers from the cemetery in Wilkowo. The four specimens from Pawłówek (Nos 27, 30, 41, 42), which, on the basis of typology and details of workmanship, I am inclined to assign to the latest stage of 11<sup>th</sup>-century Pomeranian coinage, are different in terms of metal chemical composition. Three ones (Nos 27, 30, 41), modelled on Anglo-Scandinavian coins and the deniers of Otto and Adelaide type, were made of brass/bronze (respectively 95% Cu, 1.73% Sn; 91% Cu, 7% Sn; and 78% Cu, 10% Zn) plated with silver. The last one (No. 41) has no traces of silver plating and was made of bronze (82% Cu, 14% Zn, 3.7% Sn) (Chudziak et al. 2024, pp. 1085-1087). Among the five coins from Wilkowo, one is brass (78% Cu, 15% Zn, 5% Sn), two are copper (97 and 92% Cu) and two are bronze (80% Cu, 1.5% Sn, 1.5% Pb and 80% Cu, 1.55% Sn, 0.8% Pb) with traces of surface silvering (Bogucki, Wadył 2025, pp. 147-171). As can be seen from the above juxtaposition, and as expected, the chemical composition of these coins is not homogeneous – they are made from both almost pure copper and its alloys – bronze and brass. What is significant, however, is the finding of a thin layer of silver on the surface, although this differs from typical forgeries in the technique used to make them – forgeries were most often made by applying a thick layer of silver to a copper core, whereas the coins Gdańsk, Pawłówek and Wilkowo are covered with a very thin layer of silver – most likely by etching – which was

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<sup>6</sup> Information courtesy of Dr Paweł Szczepanik from the Institute of Archaeology, Nicolaus Copernicus University in Toruń.

<sup>7</sup> Information courtesy of Paweł Powirski from the National Museum in Gdańsk.

intended to improve their appearance, but could not make them appear fully silver. I believe that in this case we are dealing with an attempt to put 'credit' (debased billon) low-silver coinage into circulation, not forgeries (Paszkievicz 2020, pp. 20, 37). Similarly, such silvering was found on copper deniers from the Mecklenburg area (Wiechmann 2013, pp. 267-312) and northern Rus' (Mikhelson and Tarlakovsky 2019, p. 180).

At the present stage of research I would follow Borys Paszkiewicz interpretation, that the copper alloy coins in question to be the last phase of the Pomeranian imitative coinage, without, of course, rejecting the thesis that they originated in the reign of Świętopełk. I would only leave open the question of the place of their production and the allocation of specific groups to mints, as apart from Białogard and Nakło suggested by B. Paszkiewicz, one should also consider Słupsk and finally Gdańsk itself, where these coins have been found in greatest numbers. While there is still support for a potential mint in Nakło in the finds, particularly those from the stronghold in Pawłówek, there remains to be considered the role of Białogard, whose significant importance in the political structure of early medieval Pomerania is attested by both historical and archaeological sources. Described by Gall as a magnificent royal city, the stronghold at Białogard is admittedly relatively small in size, but it stands out from other Pomeranian towns for its long and uninterrupted existence from at least the 8<sup>th</sup> to the 13<sup>th</sup> century (Rębkowski 2020, pp. 96-97). Theoretically, therefore, Białogard is a predestined place for a mint to function there. This was also the opinion of B. Paszkiewicz, who saw Białogard as the place where some of the copper coins of the late 11<sup>th</sup> and early 12<sup>th</sup> centuries were produced (Paszkievicz 2012, pp. 127-142). However, an analysis of the chronology and distribution of the 11<sup>th</sup>-century Pomeranian coins in no way supports the thesis that a mint functioned in this centre of princely power. This may, of course, be a result of the state of research and future discoveries will confirm the mint existence in the 11<sup>th</sup>-century Białogard. But neither should the possibility be dismissed that Białogard, together with Kołobrzeg, only 40 km away, constituted an interacting organism in which different functions were separated. In the light of the available numismatic data, it is most likely that the mint workshop was organised in Kołobrzeg-Budzistowo, although, as already mentioned, there is no direct evidence for this. Returning to potential sites for the production of copper coins from the late 11<sup>th</sup> and early 12<sup>th</sup> centuries, the currently available finds points more to Słupsk and especially Gdańsk (Paszkievicz 2020, pp. 35-36) as sites for their production.

## Conclusions

It should be clearly emphasised that at the present stage of research it is not possible to indisputably indicate any specific mints in the area of Pomerania in the



11<sup>th</sup> century, although such mints must undoubtedly have existed. However, by analysing the source material, it is possible to indicate a number of centres where coins were most probably minted (Fig. 21). Marian Rębkowski indicates that the Pomeranian imitative coinage must have been directly related to the development of ducal structures (Rębkowski 2020, pp. 77-78, 85-87), and therefore the location of the mint should be identical to one of the main seats of the Pomeranian dukes. However, taking into account the results of studies on imitative coinage in Poland, where many data indicate that there were many mints and not all of them were subject to the supreme authority (Bogucki 2020, pp. 203-210), it is not out of the question that also in Pomerania there may have been many minor workshops that can never be identified by analysis. Here, only future archaeological finds, particularly of the mint dies themselves, can help.

The distribution of Pomeranian coins from the 11<sup>th</sup> century shows two distinct clusters, as already noted by M. Rębkowski (2020, pp. 85-86). The first is the Słupia and Łupawa Rivers basins with at least three large hoards of Pomeranian coins – Łupawa, Karwno-Wargowo and Włynkowo and few medium ones – Karzница, Luzino. Most of these deposits date from the second half of the 11<sup>th</sup> century. The second zone is the Parsęta River basin, from where hoards containing a medium number of Pomeranian imitations come from – Kołobrzeg, Koszalin, Bonin, Stojkowo, Stary Chwalim, Barwice. Notable in this collection are the occurrences of several older hoards from the first half of the 11<sup>th</sup> century. Perhaps it would be appropriate to separate a third zone – the southern one with hoards from Garsk II, Mosiny, Dąbrowa, Runów Krajeński and finally from Gliszcz, which, as we recall, contained as many as 297 Pomeranian imitations. The almost linear arrangement of these hoards (but with different chronology) seems to indicate a route towards the middle Vistula, which is confirmed by the occurrence of imitations in the Dobrzyń area – in Kałdus and Bierzgłód, and further in the Mazovian finds. If one were to treat the distribution of finds as a premise for locating a mint, one would have to conclude that in Pomerania in the 11<sup>th</sup> century coins were produced in two centres. And this would probably be Kołobrzeg-Budzistowo and Słupsk. And although coin finds in special cases may indicate the place of their production, their usefulness in this respect seems limited in the reality of intensive monetary circulation in Pomerania in the 11<sup>th</sup> century. Instead, it provides a supporting rationale for the data from the other analyses.

Fig. 21. Scheme of Pomeranian coinage and hypothetical location of mints in the 11<sup>th</sup> and early 12<sup>th</sup> centuries

	Wolin?	Kołobrzeg?	Słupsk?	Nakło?	Gdańsk?
1000-1030	?	?			
c. 1030-1043	– Pearly style?	Imitations of OAP, Bohemian and Cross, deniers?			
c. 1040/1 – c. 1047		Siemomysł? – Ilisch 1990a; – ‘Mieclaw’			
c. 1047 – c. 1069/70		Siemomysł? – Pointed Helmet; – Becker II; – Hbg 27; – Hbg 17/18			
c. 1050-1070		Various imitations in fine silver – die chain, Fig. 17	Various imitations in fine silver – die chain, Fig. 17	Various imitations in fine silver – die chain, Fig. 17	
c. 1069/70 – c. 1100		Various imitations in fine silver	Various imitations in fine silver	Various imitations in fine silver?	
c. 1080 – c. 1100		?	Włynkowo Type?	?	
c. 1090 – c. 1120		?	Świętopelk (1109-1013)? – debased imitations	Świętopelk (1109-1013)? – debased imitations?	Świętopelk (1109-1013)? – debased imitations

Based on the analysis, it is therefore possible to hypothesise that the oldest mint may have operated in Wolin, which, however, collapsed in the first half of the 11<sup>th</sup> century. It is possible that at the same time coin minting started in Budzistowo, where it continued throughout the 11<sup>th</sup> century. In the second half of the 11<sup>th</sup> century, a second mint was established – probably in the vicinity of Słupsk, where both silver and copper coins were also produced. The hypothetical mint in Białogard seems to be the most doubtful in the light of the available data – on the one hand, there are almost no finds in the vicinity of Białogard, on the other hand, the stronghold in Kołobrzeg-Budzistowo was relatively close, where such coinage seems to be most likely. It is difficult, on the basis of the present state of research, to assess the functioning of a possible mint in Nakło, in the vicinity of which there are a number of finds, with the Gliszcz hoard at first place, and where later there was a centre of ducal power. However, the accumulation of finds may be related to Nakło's location on the route leading towards Kuyavia and Mazovia. It seems much more likely that the mint producing of sub-value copper coins at the end of the 11<sup>th</sup> and beginning of the 12<sup>th</sup> century was located in Gdańsk, where many such coins have been found.



Recognition of the oldest Pomeranian coinage is still far from satisfactory. The ideas, concepts and hypotheses presented above will undoubtedly undergo profound changes as a result of new discoveries and more detailed analyses, both of numismatic and archaeological material. However, it is hoped that the above attempt to organise the available material will provide a basis for a better understanding of both the coinage itself and the development of state structures in early medieval Pomerania.

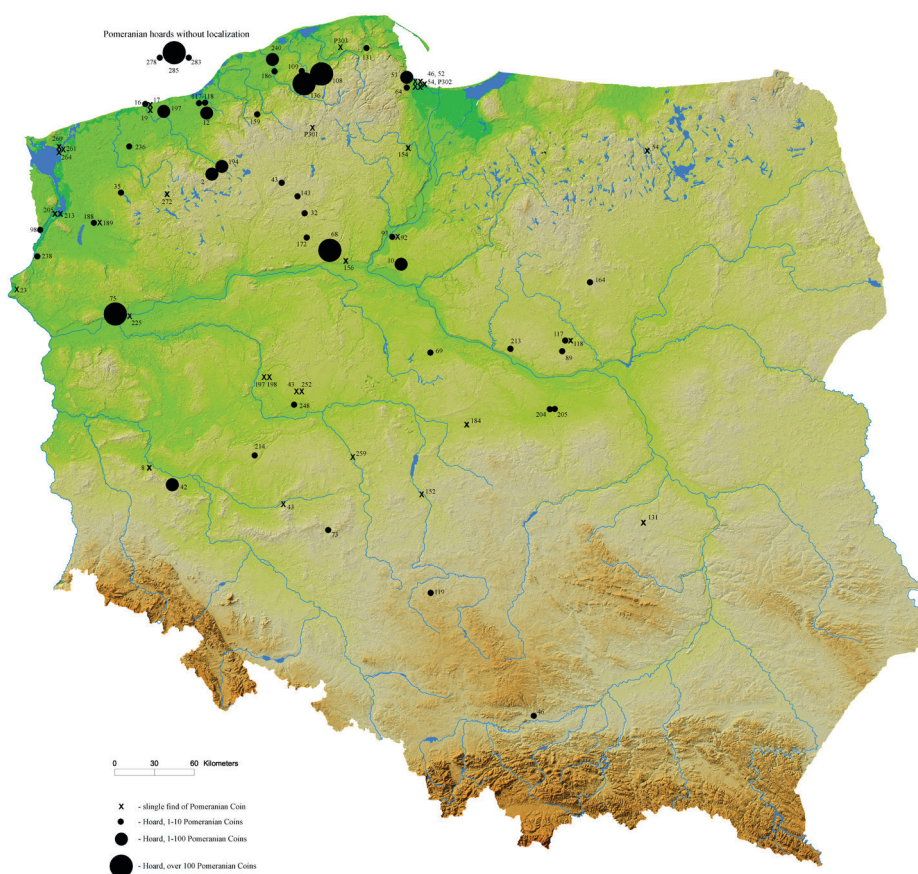


Fig. 22. Finds of Pomeranian coins in Poland

List of finds of Pomeranian coins<sup>8</sup>

FMP	Findspot	Hoard, Grave, Single	t.p.q.	Quantity	Group 1	Group 2 – pearly	Group 3 – ‘Siemomysł’	Group 4 – Łupawa	Group 5 – Włynkowo	Group 6 – ‘Świętopełk’
II.2	Barwice	H	1077	12				12		
II.10	Bierzgłowo	H	1021	28	28?					
II.12	Bonin	H	1080	82				82		
II.16	Budzistowo II/ III	H	1023	10	10					
II.17	Budzistowo IV	S	10 <sup>th</sup> -11 <sup>th</sup> c.	1				1		
II.19	Budzistowo VI	S	10 <sup>th</sup> -11 <sup>th</sup> c.	2				1	1	
II.23	Cedynia	G	11 <sup>th</sup> c.	2						2
II.32	Dąbrowa	H	1040/74	3				3		
II.35	Dobra	H	1040/60	1				1		
II.43	Garsk II	H	996	6	6					
II.46	Gdańsk III	S	11 <sup>th</sup> c.	1						1
II.52; Paszkiewicz 2020, IV.1	Gdańsk IX	S	11 <sup>th</sup> c.	3						3
II.53	Gdańsk X	H	1119	8						8
II.54	Gdańsk XI	S	11 <sup>th</sup> -12 <sup>th</sup> c.	13						13
II.64	Gdańsk – vicinity IV	H	1064	1				1		
II.68	Gliszcz	H	1047	298		1	1	296		
II.75	Gralewo I	H	1035	200		7+X	5+X	188		
II.92	Kałdus VII	S	11 <sup>th</sup> c.	1					1	
II.93	Kałdus VIII, gr. 444	G/H	1018	1	1					
II.98	Kamieniec	H	1010	2						
II.108	Karwno-Wargowo	H	1050-1100	800				800		
II.109	Karznica	H	1020	1	1					
II.117	Koszalin – vicinity I	H	1092	1				1		

<sup>8</sup> Numbers refer to the numbering of the finds in the series *Frühmittelalterliche Münzfunde aus Polen*. Numbers P301 and above are new finds from Pommerania.

II.118	Koszalin – vicinity II	H	1050-1100	7			7		
II.131	Luzino	H	1030	2	2				
II.136, 287, 288	Łupawa	H	1083/1120	2876		12	42	2822	
II.143	Mosiny	H	1059/80	5			5		
II.154	Owidz	S	11 <sup>th</sup> c.	1			1		
II.156	Pawłówek II	S	11 <sup>th</sup> c.	10				10?	4?
II.159	Płocko	H	1048	1			1		
II.172	Runowo Krajeńskie	H	1035	7			7		
II.186	Słupsk II	H	1030	1	1				
II.188	Stargard I	H	1065	2			2		
II.189	Stargard II	S	11 <sup>th</sup> c.	1				?	?
II.194	Stary Chwalim	H	1027/40	60			60		
II.197	Stojkowo	H	1050/65	12		2	10		
II.205	Szczecin III	S	11 <sup>th</sup> c.	2			2		
II.213	Szczecin XI	S	11 <sup>th</sup> c.	1			1		
II.236	Wicimice	H	996	1	1				
II.238	Widuchowa II	H	1061	1					1?
II.240	Włynkowo	H	1050-1100	53			53		
II.260	Wolin XX	G/S	11 <sup>th</sup> c.	1				?	?
II.261	Wolin XXI	S	11 <sup>th</sup> c.	2				?	?
II.264	Wolin XXIV	S	11 <sup>th</sup> c.	3				3	
II.272; VB.272.B	Żółte	S	1050-1100	2				1	1
VA.54	Wyszembork	S	1050-1100	1			1		
II.278	Pomerania VI	H	1050	27		5	22		
II.283	Pomerania XI	H	1050	10		2	8		
II.285	Pomerania XIII	H	1120	310			310		
P301	Bytów	S	11 <sup>th</sup> c.	1					1
P302	Gdańsk	S	11 <sup>th</sup> c.	2					2
P303	Wilkowo	S	11 <sup>th</sup> c.	5					5
I.43	Giecz V	G	11 <sup>th</sup> c.	1			1		
V.B.252	Giecz IV.B	S	11 <sup>th</sup> c.	1			1		
I.197	Poznań XVII	S	11 <sup>th</sup> c.	1			1		
I.199	Poznań XIX	S	11 <sup>th</sup> c.	1			1		
I.214	Rokosowo	H	1100	3			3		

I.225	Santok II	S	11 <sup>th</sup> c.	1				1		
I.248	Środa Wielkopolska – vicinity II	S	11 <sup>th</sup> c.	1				1		
V.B.259	Kurza	S	11 <sup>th</sup> c.	1				1		
III.69	Lubraniec	H	1046	1				1		
III.89	Naruszewo	H	1091	2				2		
III.117	Płońsk I	H	1055	1				1		
III.118	Płońsk II	S	1050-1100	1				1		
III.152	Sieradz III	S	11 <sup>th</sup> c.	1				1		
III.164	Stryjewe Wielkie	H	1046/60	3				3		
III.184	Tum III	S	11 <sup>th</sup> c.	2				2		
III.204	Zakrzew I	H	1017	4				4		
III.205	Zakrzew II	H	1020	1				1		
III.213	Żukowo	H	1024	2				2		
V.B.131	Radom II.B	S	11 <sup>th</sup> c.	1				1		
IV.B.8	Bytom Odrzański	S	11 <sup>th</sup> c.	1				1		
IV.B.42	Maniów	H	1037/50	15				15		
IV.B.43	Milicz I	S	11 <sup>th</sup> c.	2				2		
IV.B.73	Szlichtyngowa	H	1061/65	3				3		
IV.A.46	Kraków VIII	H	1035/50	2				2		
IV.A.119	Złochowice	H	1055	2			1	1		
Bornholm	Tornegård	H	1047	2			2			
Bornholm	Frostegård	H	1050	1			1			
Bohemia	Šelešovice, Kroměříž district <sup>9</sup>	H	1046	1				1		
				4946	c. 50	c. 20	c. 61	c. 4701	c. 72	c. 42

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<sup>9</sup> The hoard is not yet published. Information courtesy of Jan Videman.

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