

WOJCIECH CHUDZIAK*, ADAM MUSIAŁOWSKI**, MARCIN WEINKAUF***

A SILVER DEPOSIT FROM NIEDZWIEDŹ – ANOTHER PREMISE IN THE STUDY OF THE ORIGINS AND FUNCTION OF A STRONGHOLD IN STEKLIN IN DOBRZYŃ REGION¹

Abstract. The article concerns an early medieval silver hoard, recently (and accidentally) discovered at a suburb settlement in Niedźwiedź in Dobrzyń region. The settlement is a part of a large complex with a stronghold and a developed lake shore, identified with the historical Steklin mentioned in the so-called Mogilno Falsification. The hoard, consisting of 28 coins and six pieces of jewelry, was deposited after 1080. The factual scope of the article includes primarily the results of numismatic analyses of one Arabic coin and the remaining Western European coins, including the prevailing group of so-called cross denarii. The discovery is interpreted in a broad socio-economic and political context.

Keywords: silver deposit, Arabic dirham, Western European denarii, silver beads, Steklin, Dobrzyń region, overland route, stronghold.

PRELIMINARY REMARKS

The early medieval stronghold in Niedźwiedź/Steklin in Dobrzyń region is commonly identified with the *castrum Steclyn*. It was mentioned in the so-called Mogilno Falsification containing the description of the oldest rent of Benedictines from Mogilno abbey. In this document, usually referred by many scholars to the times of Bolesław the Bold, the *castrum* was included in the list of nineteen Masovian strongholds. They were responsible for providing the Mogilno monks with one ninth rent from the market fees and monetary income calculated in denarii, as well as the same benefit from hogs, foals and fish (KDW IV, No. 3).

* ORCID: 0000-0003-3409-0991, Instytut Archeologii, Uniwersytet Mikołaja Kopernika w Toruniu, Szosa Bydgoska 44/48, 87-100 Toruń, wojciech.chudziak@umk.pl.

** ORCID: 0000-0003-3186-6766, badacz niezależny, amusialowski@wp.pl.

*** ORCID: 0000-0002-3195-4988, Instytut Archeologii, Uniwersytet Mikołaja Kopernika w Toruniu, Szosa Bydgoska 44/48, 87-100 Toruń, marcin.weinkauf@umk.pl.

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Steklin is mentioned here in a group of several other strongholds located within in the historic Dobrzyń Land and Kuyavia: Vistula centers in Dobrzyń, Włocławek, Przypust and Słońsk, as well as the stronghold in Rypin located between the Drwęca, Vistula and Skrwa rivers. This document has become the subject of numerous discussions and studies and it would be pointless to cite them all here (see e.g. Płocha 1969; Kürbis 1978, pp. 65-111; Labuda 1978, pp. 21-59; Łowmiański 1985; Powierski 1996, pp. 215-212). For years, it has been the basis for studies on the stronghold-provincial organization in Poland in the 11th and at the beginning of the 12th century (see e.g. Lalik 1967, pp. 5-51; Modzelewski 1975, pp. 168-170). An important part of the studies is dedicated to the genesis and functions of the strongholds mentioned in the document. Previous interpretations of many of these objects have recently gained support in the results of archaeological excavations (Lewandowska 2016, pp. 97-124; Kowalczyk-Heyman 2018, pp. 197-204). One of such places is an early medieval settlement complex in Niedzwiedź/Steklin, located at Lake Steklińskie (AZP 41-47/16), the recognition of which opens up new perspectives for the interpretation of the so-called Mogilno Falsification (Fig. 1; Chudziak in print). Although the stronghold has not been sufficiently explored so far, discoveries in the settlement's immediate vicinity indicate a high rank of this place in the early Middle Ages, especially in the second half of the 11th and early 12th century. Particularly noteworthy are the remains of a wooden jetty and wharf located under the water at the lake's shoreline in the vicinity of the stronghold, as well as a series of luxurious items, unique in the entire region, including a bronze, ornamented bowl and a large set of military items (ten iron axe blades and a spear with an iron head) (Steklin, site 1; Fig. 2) deposited within it (see e.g. Chudziak, Kaźmierczak and Niegowski 2011, pp. 141-147; Chudziak and Weinkauf 2019, pp. 109-124). Other military items of this type (three axe blades and a spearhead) were found at the bottom of the water body across the lake, near a large village settlement synchronized with the stronghold (Hornówek, site 8; see e.g. Chudziak, Kaźmierczak and Niegowski 2011, pp. 77-79). Undoubtedly, an important premise for drawing conclusions on the sociotopography of the settlement complex in question is the recently discovered deposit of silver, found in the stronghold foreland located within the administrative boundaries of the village of Niedzwiedź (site 1a) (Fig. 1). During the excavations carried out in this place in the 1990s, settlement pits were unearthed, indicating the residential and economic nature of the settlement representing the immediate base of *castrum Steclyn* (Chudziak in print).

The assemblage of "silver" objects, consisting of 28 coins and six pieces of jewelry, was discovered in 2019 by an accidental finder in an arable field on an archaeological site marked on the basis of the extent of the source material on the surface (especially the dispersion of pottery) (Fig. 3). The hoard was deposited in a moraine plateau, near the edge of the lake's trough, east of the side erosion valley. The deposit covered an area of about 1 are (15×7.5 m) and, according to the finder, was located about 70-80 meters south of the foot of the stronghold's



1. Lake Steklińskie in Dobrzyń Land with a marked place of finding the hoard (photo by M. Petelewicz; edited by W. Ochotny)

rampart (Fig. 1). There is no certain information as to whether a detection device was used in this discovery, although the probability is very high. However, the context of the find and the field owner's account suggest that we may be dealing with a secondary deposit. Intensive agricultural works carried out for many decades within the settlement disturbed the structure of the cultural layers and the accompanying settlement pits. Hence it can be assumed that the deposit, originally lying in a fossil context, was disturbed by an agricultural tool and spread out on the surface not far from the place of its deposition (Andrałojć, Andrałojć, Silska and Szyngiera 2011, p. 29). This discovery goes along a trend, reflected in the recently published monumental catalogue of early medieval monetary finds (Frühmittelalterliche Münzfunde aus Polen, eds. M. Bogucki, P. Ilisch, S. Suchodolski/hereinafter FMP) where in the last two decades, an almost rapid increase in the

1. List of coins deposited in Niedźwiedź

No.	Origin	Description	References	Comments	No. of figure
1	Sāmānidzi, Mansūr ibn Nūḥ (351-366 = 961-976), [Amul], AH 3[57] (967/8) / Undefined dynasty, [Amul], AH 3[57] (967/8)	Obverse: legend 1: ئَنْسُورٌ بْنُ نُوحٍ; on the right side of the inscription, illegible legend 2: ... ئَنْسُورٌ بْنُ نُوحٍ; legend 3: ... ئَنْسُورٌ بْنُ نُوحٍ rim 1: single linear Reverse: legend 1: last verse preserved: ... ئَنْسُورٌ بْنُ نُوحٍ rim 1: double linear	Markov 1896, p. 157; Nos. 1026, 1027 Zambaur 1968, p. 34 (Āmul) Stern 1967, p. 248, No. 45; 249, No. 46 Oriental Coins 2022	0,49 g	3: 28
2	Germany, Harz area Otto-Adelheid type denar, ca 990-995; or ca 995/1000-1010/15?	Obverse: in inner serrated rim visible three arms of cross pattée. Between them O-Q[...]. In border legible fragment of inscription ئَنْسُورٌ بْنُ نُوحٍ. Cross consists of triangular wedges. G angular Reverse: in inner serrated rim visible bottom of chapel, with a ball. In border hardly legible letters of inscription, likely [...] ئَنْسُورٌ بْنُ نُوحٍ	Hatz 1961, III/2a/7a?; Rundberg 2000, p. 12, 18	½ coin 0,62 g (irregular)	3: 20
3	Germany, Bavaria, Henry II (1002-1024), Salzburg mint, 2. period V 1009*13-VI 1024, secondary mint	Obverse: in pearl rim crowned bust to the right. In border deformed inscription ئَنْسُورٌ بْنُ نُوحٍ. second S inverted Reverse: in pearl rim straight cross with widened arms' ends. In arms' corners diagonally rings, three balls arranged in triangle and wedge with three small balls at tops. In border deformed inscription ئَنْسُورٌ بْنُ نُوحٍ, first and second S inverted, second cross without left arm, right one loose	Dbg 1078; Hahn 1976, No. 94; Aw. XVI, Rw. 94B ²	ø 21 mm 1,21 g coin worn and half cracked	3: 2
4	England Cnut (1016-1035), York mint, Mint master Frithcol, Dinar from ca 1017-1023	Obverse: crowned bust in quatrefoil to the left, in border inscription ئَنْسُورٌ بْنُ نُوحٍ. Reverse: in quatrefoil ended with balls on tops long empty cross. Arms of the cross ended with three crescents. In border inscription ئَنْسُورٌ بْنُ نُوحٍ	North 1994, No. 781	ø 20,4 mm 0,92 g hole between O and M in ANGLORVM	3: 1
5	Germany Cross denar, ca 1015-1025	Obverse: in inner serrated rim straight cross with balls in arms' corners, in border pseudo inscription Reverse: in inner serrated rim cross pattée, in border pseudo inscription	CNP VI, 690 var; Kilger Sa Sal D 1	ø 15,8 mm 0,81 g at the rim broken off fragment of coin	3: 10

6	Germany Cross denar, ca 1025-1030	Obverse: in inner serrated rim pearl cross, in border pseudo inscription Reverse: in inner serrated rim cross pattée, in border pseudo inscription	CNP V, 575 var; Kilger MOL A 2 [Sluszków 75-82, Kędzierski dates approx. 1025-1050]	ø 16,6 mm 0,88 g coin cracked	3: 14
7	Germany Cross denar, ca 1025-1060	Obverse: in inner serrated rim straight cross with ball in the ring and balls alternately, in border pseudo inscription Reverse: in inner serrated rim cross pattée, in border pseudo inscription	CNP VI, 748-755; Kilger Sal D 2:1	ø 16,5 mm 1,03 g	3: 4
8	Germany Cross denar, ca 1025-1060	Obverse: in inner serrated rim straight cross with ball in the ring and balls alternately, in border pseudo inscription Reverse: in inner serrated rim cross pattée with ball in arms' corners, in border pseudo inscription	CNP VI, 748-755; Kilger Sal D 2:1	ø 16,1 mm 0,97 g	3: 9
9	Germany Cross denar, ca 1025-1060	Obverse: in inner serrated rim straight cross, two balls in arms' corners and ring with ball, in border pseudo inscription Reverse: in inner serrated rim cross pattée, in border pseudo inscription	CNP VI, 748-755; Kilger Sal D 2:1	ø 16 mm 0,75 g large loss at the edge, coin bent	3: 12
10	Germany Cross denar, ok. 1025-1060	Obverse: in inner serrated rim straight cross, visible two arms, ball in corners and ring with ball, in border pseudo inscription Reverse: in inner serrated rim cross pattée, visible one arm, in border pseudo inscription	CNP VI, 748-755; Kilger Sal D 2:1	ø 16,2 mm 0,53 g regular half	3: 22
11	Germany Cross denar, ca 1030-1050	Obverse: in inner serrated rim pearl cross, in border pseudo inscription Reverse: in inner serrated rim cross pattée, in arms' corners alternate ball and V, in border pseudo inscription	CNP V, 605 var; Kilger MOL A 3:1	ø 14,3 mm 0,62 g loss at the periphery	3: 15
12	Germany Cross denar, ca 1050-1060	Obverse: in inner serrated rim pearl cross, in border pseudo inscription Reverse: in inner serrated rim cross pattée, visible one arm and ball and ring with ball, in border pseudo inscription	CNP V, 559 var; Kilger MOL A 4:2	ø 14,5 mm 0,50 g $\frac{1}{2}$ coin	3: 23
13	Germany Cross denar, ca 1050-1060	Obverse: in inner serrated rim pearl cross, in border pseudo inscription Reverse: in inner serrated border, balls in arms' corners, in border pseudo inscription	CNP V, 545; Kilger MOL A 4:1 [Sluszków 69-74, Kędzierski dates approx. 1015-1050]	ø 15 mm 1,12 g	3: 16

14	Germany Cross denar, ca 1060-1080	Obverse: in inner serrated rim pearl cross, in border pseudo inscription Reverse: in inner serrated rim cross pattée, between two ɔ visible three arms, in border pseudo inscription	CNP V, 614?; Kilger MOL A 5:1/1 [Shuszków 152-463, Kędzierski dates approx. 1050-1070]	ø 15,8 mm 0,67 g more than ½ coin	3: 24
15	Germany Cross denar, ca 1060-1080	Obverse: in inner serrated rim pearl cross, in border pseudo inscription Reverse: in inner serrated rim cross pattée, in arms' corners alternate balls and V with ball inside, in border pseudo inscription	CNP V, 613-619; Kilger MOL A 5:1/1 [Shuszków 152-463, Kędzierski dates approx. 1050-1070]	ø 14,3 mm 0,80 g	3: 7
16	Germany Cross denar, ca 1060-1080	Obverse: in inner serrated rim pearl cross, in border pseudo inscription Reverse: in inner serrated rim cross pattée, in arms' corners alternate balls and V with ball inside, in border pseudo inscription	CNP V, 613-619; Kilger MOL A 5:1/1 [Shuszków 152-463, Kędzierski dates approx. 1050-1070]	ø 15,3 mm 0,95 g	3: 5
17	Germany Cross denar, ca 1060-1080	Obverse: in inner serrated rim pearl cross, in border illegible pseudo inscription Reverse: in inner serrated rim cross pattée, between arms one ball, in border pseudo inscription	CNP V, 659-661; Kilger MOL A 5:2 [Shuszków 1643-1690, Kędzierski dates approx. 1080-1105]	ø 12,4 mm 0,72 g	3: 8
18	Germany Cross denar, ca 1065-1100	Obverse: in inner serrated rim straight cross, in arms' corners alternate rings and wedges, in border pseudo inscription Reverse: in inner serrated rim cross pattée, in border pseudo inscription	CNP VI, 808 var.; Kilger Sal D 4:1/1 [Shuszków 2129-2140, Kędzierski dates approx. 1060-1090]	ø 16 mm 1,00 g	3: 11
19	Germany Cross denar, ca 1070-1100	Obverse: in inner serrated rim crosier curves to the left with ball in curved top of a crosier and ball around, in border pseudo inscription Reverse: in inner serrated rim cross pattée, in arms' corners alternate balls and V with ball inside, in border pseudo inscription	CNP VII, 981; Kilger Sal E 3:1 [Shuszków 2928-2994, Kędzierski dates approx. 1070-1090]	ø 13,5 mm 0,66 g	3: 13
20	Germany Cross denar, ca 1080-1105	Obverse: in inner serrated rim pearl cross, in border pseudo inscription Reverse: in inner serrated rim cross pattée, cross in opposite arms' corners, in border pseudo inscription	CNP V, 639-640; Kilger MOL A 5:1/2	ø 14,3 mm 0,76 g	3: 17

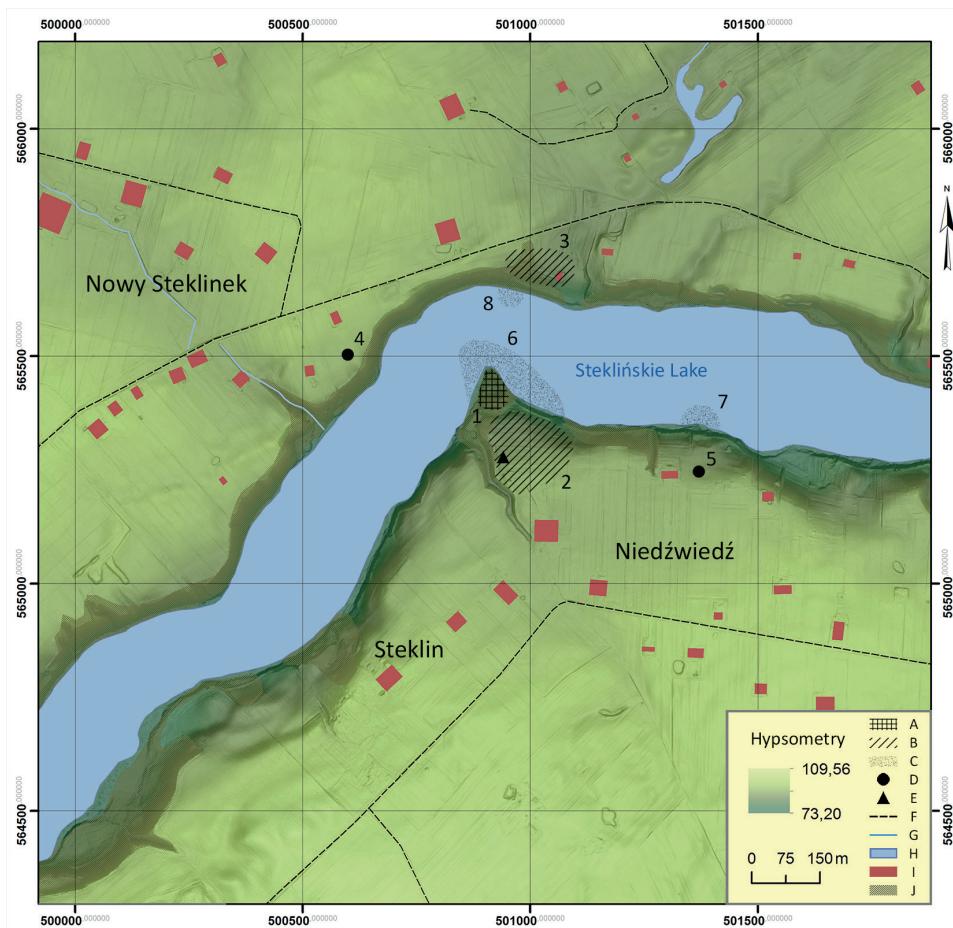
21	Germany Cross denar, ca 1080-1105	Obverse: in inner serrated rim pearl cross, in border pseudo inscription Reverse: in inner serrated rim cross pattée, in arms' corners alternate balls and V with ball inside, in border pseudo inscription	CNP V, 650; Kilger MOL A 5;1/2	ø 14,7 mm 1,06 g	3: 6
22	Germany Cross denar, XI w.	Obverse: in inner serrated rim pearl cross, in border pseudo inscription Reverse: in inner serrated rim cross pattée, in border pseudo inscription	CNP V	ø 16 mm 0,49 g regular ½, coin corroded	3: 21
23	Germany Cross denar, XI w.	Obverse: in inner serrated rim pearl cross ² , in border pseudo inscription Reverse: in inner serrated rim cross pattée, in border pseudo inscription with V between and ball inside, in border pseudo inscription	CNP V	ø 14 mm 0,52 g regular ½	3: 18
24	Germany Cross denar, XI w.	Obverse: in inner serrated rim pearl cross ² , in border pseudo inscription Reverse: in inner serrated rim visible one arm of cross pattée	CNP V	ø 13,4 mm 0,37 g regular ½	3: 25
25	Germany Cross denar, XI w.	Obverse: in inner serrated rim straight cross, visible three arms and ring, in border pseudo inscription Reverse: in inner serrated rim cross pattée, in border pseudo inscription	CNP VII	ø 15,6 mm 0,46 g regular ½, coin heavily corroded	3: 19
26	Germany Cross denar, XI w.	On both sides, visible fragment of inner serrated rim and pseudo inscription. On one side two wedges and overturned R, on the other overturned R and two wedges	CNP V-VII	0,19 g	3: 26
27	Germany Cross denar, XI w.	On both sides visible inner serrated rim and in border pseudo inscription	CNP V-VII	0,31 g	3: 27
28	Imitation 11 th century (West Slavic?)	On one side visible fragment of inner serrated rim, over it in border D. Reverse heavily worn, illegible	—	ø 19,5 mm 1,01 g	3: 3

number of silver deposits discovered in Poland has been recorded (the so-called hoards). It should be attributed to large-scale use of electromagnetic devices used by specialist archaeologists and, unfortunately, also illegal hoard hunters. In the site's immediate vicinity, three other deposits of this type have been found in the villages of Kołat-Rybniki (Sobczyk 2015, p. 31-68), Sumin (FMP V/229) and Karnkowo (FMP III/49).

SOURCE ANALYSIS

The hoard, containing 28 coins, consists of 18 complete or only slightly damaged pieces, nine "halves" and a quarter of a coin, weighing in total 20.42 grams. A detailed description thereof is included in Table 1. The first group of coins includes two "personalized" West European denarii and 15 cross pfennigs. In the second group, apart from the "half" of Otto and Adelheid's denarius, only cross pennies appear, and the quarter of a coin has been identified by Dorota Malarczyk (National Museum in Krakow) as a dirham minted by a ruler from the Persian Samanid dynasty. This specimen, the oldest in the group in question, was issued by Maṣṣūr ibn Nūḥ in Amul in AH 357 (?) (967/968). It was a part of the penultimate monetary stream of Arabian silver which flowed into Poland in 900-989/990 (phase III; Adamczyk 2018, p. 67-69). Single coins of this type were also found in two nearby localities, i.e. in Sumin, seven and a half kilometers to the south-east (settlement, site 7; 42-48/34; four dirhams, including the youngest minted by Maṣṣūr ibn Nūḥ in 961-976; FMP V/229) and Kołat-Rybniki, a little further to the east (settlement, site 2; one type I cross penny and 19 dirhams, including two issued by Maṣṣūr ibn Nūḥ, after 966/967)². Probably deposited in the last quarter of the 10th century, they seem to prove that in this period, Dobrzyń Land was in the zone of Arab silver circulation. The aforementioned finds of Maṣṣūr ibn Nūḥ coins, concentrated in a small area, may indicate that the population living in the vicinity of Steklińskie and Sumińskie Lakes had been in possession of them at that time, although the circumstances of their arrival to the area are not clear (trade, gifts, fees?). It cannot be ruled out, however, that their presence was related to the launch of a long-distance road running latitudinally through the northern part of Dobrzyń Land towards Kuyavia, representing a branch of the so-called Rus' route from Mazovia towards Pomerania (via Kałdus/Chełmno). This is indicated by the spatial distribution of hoards with coins minted by this ruler, including the largest in the scale in entire Poland, an assemblage known as the hoard from Ciechanów (III) in Mazovia, dated after 975 (141 identified coins, of which 3.6% are Islamic coins; FMP 2015, pp. 73-97). Other relatively numerous deposits containing these

² Numismatic examination of the coins from the Kołat-Rybniki site was made by Dorota Malarczyk (National Museum in Krakow), MA.



2. Topographic map of the Lake Steklińskie area with marked early medieval sites
 Legend: A – stronghold; B – borough settlement; C – range of appearance of historic material; D – settlement or supposed settlement; E – hoard; F – dirt roads; G – watercourses; H – surface waters; I – buildings; J – forest areas. List of sites: 1 – Niedźwiedź (site 1), 2 – Niedźwiedź (site 1a), 3 – Steklinek (site 4), 4 – Steklinek (site 3), 5 – Niedźwiedź (site 2), 6 – Niedźwiedź (site 5), 7 – Niedźwiedź (site 6), 8 – Hornówek (site 8) (cf. Chudziak, Weinkauf 2019, Fig. 5.2)

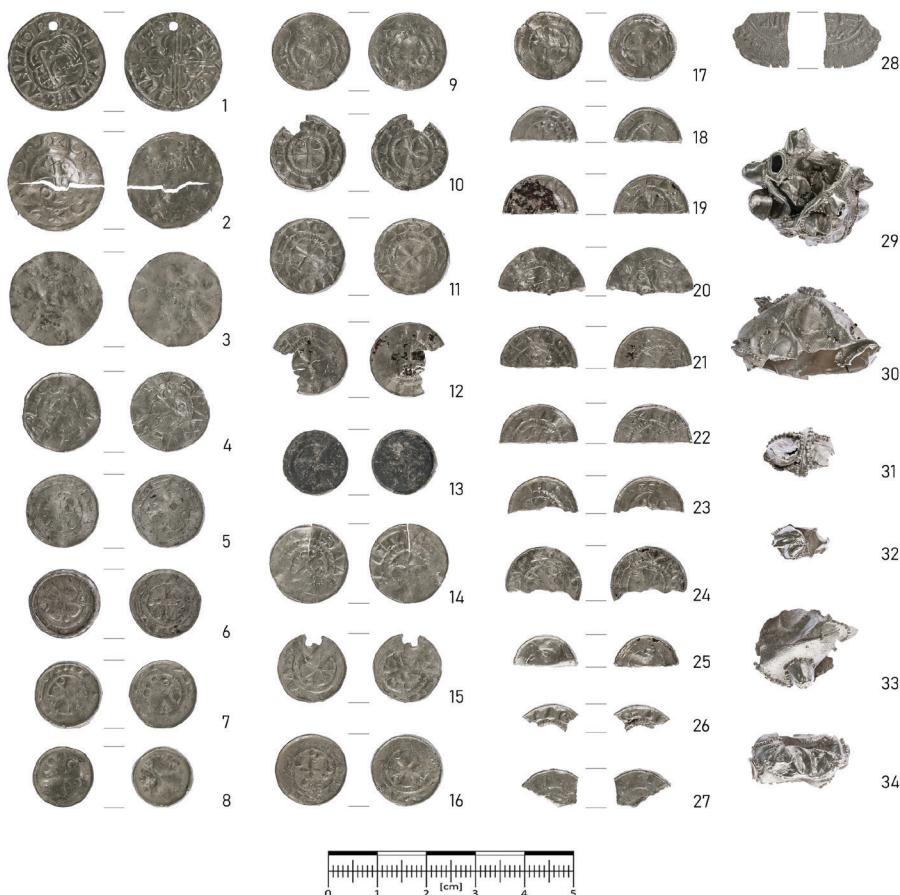
numismatic items include a hoard discovered in Purzyce, not far from Ciechanów (after 975/6; 11 coins; FMP 2015, p. 341) and a hoard from Gąski in Kuyavia (after 983; 14 coins)³. Such a system could indicate an eastern route of the inflow

³ The hoard was discovered during excavations conducted by the Institute of Archaeology of Adam Mickiewicz University in Poznań in 2009-2010 (Talarczyk-Andrałojć and Andrałojć 2010, typescript archive of IA UAM) and then by Józef Bednarczyk, Ph.D.; Currently, the hoard is being studied as part of a project implemented by the Institute of Archaeology of Nicolaus Copernicus University in Toruń.

2. List of hoards with cross denarii dating after 1060 (Kuyavia, Mazovia and Chełmno Land)

No.	City	T.p.q.	Number of coins in the group	Weight	Cross denarii total [after 1050/1060]
1	Dobrzyń, Golub-Dobrzyń county	1060	380+25	449.56 g	130 + 4 = 34.21% [?, in types V-VII only 2 copies were specified, among the remaining 85 copies there could have been minted after 1050] 3 = 100% [33,33%]
2	Kaldus-Uść III, Chełmno county (FMP II/97)	approx.1060	3	2.99 g	
3	Debice, Włocławek county	1061	>43+2+X	approx. 400 g	6 + X = 13.95% [> 17%, no exact figures]
4	Okunin, Nowy Dwór Mazowiecki county	1061	61+ a few	approx. 60 g	19 + X = 31.15% [%, 2, cross pennies given in general - vol. V, VI and vol.?]
5	Kaldus V, Chełmno county (FMP II/90)	approx.1065	approx. 12	approx. 11-12 g	approx. 12 = 100% [16,67%, 4 denarii in the group 1025-60, 1050-60 and 6 pcs. unspecified]
6	Karnkowo, Lipno county	1075	44+24	58,74 g	44+24 = ~100% [97,78%]
7	Przedhuż, Radziejów Kujawski county	1075	2+X	?	2 + X = approx. 100% round only 1 coin, the other one signed? X=? [?]
8	Otoczna, Rypin county	1077	27 or 28+X	?	
9	Mazovia I?	1077	>1,000+X	approx. 1.220 g	> 1000 = approx. 100% uncertain dating (Ladislaus added?, part of Ciechanow or Płonisk?)
10	Płock II, Płock county [around]	1079	approx. 2,000	?	several or a dozen = approx. 0.5% but Bolesław II several and Herman approx. 2000
11	Zgłowiączka I, Włocławek county	1079	96+2	142 g	93+2 = 96.88% [92.47%]

12	Siedlce voivodeship, now area of Masovian voivodship	1080	13	13.35 g	13 = 100% [100%]
13	Niedzwiedź, Toruń county	1080	19+9	29.26 g	$14 + 9 = 73.68\%$ [min. 57%; 3 + 1 could also have been minted after 1050; 0 + 6 was attributed generally to the 11 th century]
14	Rzecksi-Wólki, Ciechanów county	1085	>2,154+35	5,400 g	2,113 + 35 = 98.10% no typological distinction but in vol. V-VII there were probably large numbers of younger emissions
15	Kaldus IX, Chełmno county (FMP II/94)	1090	13	20,58 g	$12 = 92.31\%$ [100%]
16	Sokołów, Gostynin county	[1059], approx.1090	193+8	194.76 g	$186+7 = 96.37\%$ [99.17%]
17	Siecięń-Rumunki, Płock county	[1080], approx.1100?	643+2	610,94 g	$643+2 = 100\%$ [74.61%]
18	Naruszewo, Płonisk county	[1091], approx.1100	733+143	above 1,500 g	$698+98 = 95.22\%$ [89.86%]
19	Rybitywy, Płonisk county	[1035], around the late 11 th century	<4,485 from the count	4,185 g	$4,453 = 99.29\%$ but vol. ? = 4,448, and in vol. V-VII only the starting date of issue is given



3. Coins and jewellery in the deposit from Niedźwiedź (photo by W. Ochotny)

of Mañṣūr ibn Nūḥ coins (probably also of his brother and son), directly from Rus', through Mazovia and Dobrzyń Land, mainly towards Greater Poland and, to a lesser extent, towards Pomerania. Transport thereof along the Bug-Vistula waterway is also possible (Dzieduszycki 1991, p. 42, Fig. 1). Coins of this ruler are known, among others, from a hoard from Uście near Kałdus in the Chełmno Land (after 975; 8 coins; FMP 2016, p. 260) and Mózgowo I in Pomerania (after 1002; 10 coins; FMP 2016, p. 81) (Fig. 4). The main stream of inflow, however, was directed towards Greater Poland, where they were confirmed, totaling 470 specimens in 19 hoards. This indicates a high degree of dissemination of the issue of this ruler in the very center of the early Piast state. The chronology of the hoards



4. Map of Poland with hoards containing Mansūr ibn Nūḥ dirhams (Terminus post quem)

Legend: 1. Puck, Puck county (965); 2. Kałdus-Uśc I, Chełmno county (975); 3. Pomerania XIV (980); 4. Wolin XXII, Kamięń Pomorski county (982); 5. Gralewo II, Gorzów county (983); 6. Rybice, Kamięń Pomorski county (985?); 7. Garsk II, Człuchów county (996); 8. Wicimice, Gryfice county (996); 9. Budzistowo III, Kołobrzeg County (1017); 10. Widuchowa I, Gryfin county (1047?); 11. Sumin, Lipno county (961-976); 12. Kołat, Lipno county (966/967); 13. Drohicyn III, Siemiatycze county (967/968); 14. Kołomłoty I, Biała Podlaska county (970); 15. Maurzyce-Ruszków, Łowicz county (973); 16. Ciechanów III, Ciechanów county (975); 17. Purzyce, Ciechanów county (975/976); 18. Płock III, Płock county (1010?); 19. Nowe Brzozowo, Mława county (1027); 20. Oleśnica, Poddębice county (1039); 21. Niedźwiedź, Toruń county (1080); 22. Gąski, Inowrocław county (980/981); 23. Maszenice, Inowrocław county (1027); 24. Poznań I, Poznań county (961); 25. Wielonek, Szamotuły county (961); 26. Dziekanowice I, Gniezno county (968/969); 27. Obrzycko, Szamotuły county (973?); 28. Sieroszewice, Ostrów Wielkopolski county (976); 29. Zalesie, Słupca county (976); 30. Kąpiel, Gniezno county (983); 31. Dzierżnica II, Środa Wielkopolska county (983-985); 32. Obra II, Wolsztyn county (1005); 33. Kalisz X – Rajsków, Kalisz county (992-1000); 34. Kleszczewo, Poznań county (996); 35. Kalisz X – Rajsków?, Kalisz county (999); 36. Jarocin, Jarocin county (1004); 37. Tarnowo Pałuckie, Wągrowiec county (1005); 38. Pomorsko, Zielona Góra county (1006); 39. Ulejno, Środa Wielkopolska county (1010?); 40. Węgierskie, Poznań county (1010); 41. Lisówka, Stubice county (1014); 42. Stary Dworek, Międzyrzecz county (1018); 43. Obiszów I, Polkowice county (970); 44. Lasowice, Nysa county (983); 45. Kotowice II, Wrocław county (1010); 46. Legnica, Legnica county (1025?); 47. Ilawa – okolice II, Ilawa county (968/969); 48. Mózgowo I, Ilawa county (1010) (edited by M. Weinkauf)

in question, deposited relatively shortly after the minting in the caliphate (Tab. 2), is noteworthy. The Mansūr ibn Nūḥ coins generally occur in assemblages deposited in the last quarter of the 10th century, or the first two decades of the 11th century (Tab. 2). Assuming that the specimen in question is in fact directly related to the series of other coins representing the main core of the Niedźwiedź deposit (which is not certain given the circumstances of its discovery), it would be the youngest deposit from Poland in which its occurrence was recorded. However, its weight potentially corresponds to the weight of the few cross penny halves present in it, corresponding to minimal exchange transactions in the 11th century (Kiersnowski 1960, p. 448).

The next item in terms of seniority is the irregular half of the Otto and Adelheid-type Saxon denarius (OAP type). Unfortunately, the state of its preservation does not allow for a more precise reference to a specific variant in Vera Hatz's classification (1961): among other things, the cross crowning the roof of the church remains unknown, also if there are actually no marks on its sides and the position of D in relation to the arms of the cross in the ODDO inscription. Taking into account the partially preserved reverse with a visible bottom of the chapel and a ball, this specimen should be classified under type III: 2a, although there is another interpretation. Peter Ilisch put forward a hypothesis that type III: 2a (similarly to other sub-varieties distinguished within this classification unit), without horizontal stripes in the chapel, is not a deliberate separate emission, but corresponds to type III: 7. According to Ilisch, the reason for the lack of the said stripes is stamp wear or poor minting (Ilisch 2005, pp. 39-62; 2017, pp. 179-200). This view is quite probable in view of the number of relationships between the denarii in Polish hoards classified under both varieties. Considering only nine specimens of the former variety, type III: 7 denarii were common in almost entire Poland (330 items). The chronology of the issue of both type III varieties was defined by Jonas Rundberg: in the case of the former variety – for the years 995/1000-1010/1015 (III: 2), while of the latter one – for the years 990-995 (III: 7) (Ilisch 2005, p. 55)⁴.

The Otto and Adelheid denarii, minted in Germay since 983, appeared relatively quickly in central (Kapiel, FMP I/103, after 983; five specimens of type III: 7) and southern Greater Poland (Masanów, FMP I/145, after 985 and Ołobok FMP I/169, after 983/since 1000?). From where, probably through internal, indirect contacts with Saxony, they got to Mazovia. Transport by sea cannot be ruled out (Kowalewski 2003, p. 156). This may be indicated by the chronology of the hoard of coins from Garsk II in Pomerania, representative in terms of the number of coins, dated after 996, although it contains both types of denarii, but with absolute

⁴ A slightly different dating has been proposed by J. Rundberg; he attributes type III, 2 to the years around 995/1000-1010/15, and type III, 7 to the time around 990-995 (Rundberg 2000, p. 12).

prevalence of the variety III: 7 specimens (70 items/16.2% of the entire assemblage; see table).

Relatively early, single Otto and Adelheid denarii (unfortunately typologically unidentified), appeared in Mazovia. One specimen is known from a hoard from Kretki in Dobrzyń Land, where it was deposited after 989 with an Augsburg denar of Bishop Liutolf, jewelry and pieces of silver (FMP III/61). Another denarius of this type comes from a hoard from Ldzań in southern Mazovia (FMP III/63; after 1002). At the same time, one of the hoards known from Ciechanów (II; after 1002), consisting of 103 whole coins and 22 fragments, was deposited, in which the more precisely described Otto and Adelheid denarii represented almost 60% of the entire assemblage of coins, and almost 70% of German issue (FMP III/17, 72). However, there were no examples of type III: 2a, or the potentially corresponding type III: 7 among them. It is also worth noting that a little later, after 1014, a hoard from Zbójenko in Dobrzyń Land was deposited, containing 158 coins, of which 63 specimens (over 40% of the entire assemblage) were Otto and Adelheid denarii, unfortunately not classified in detail (FMP III/206).

The oldest and, at the same time, the only hoards in Mazovia containing single denarii of type III: 2a were found in hoards from Kalduś VIII (after 1018; 1 specimen; FMP 2016, p. 252), Stryjewo Wielkie (after 1046; 1 specimen; FMP 2015, p. 405), and probably from Żukowo (after 1024; 1 specimen; FMP 2015, p. 527) and from Mniszki (after 1027; 1 specimen; FMP 2015, p. 239). Taking into account P. Ilisch's suggestion that denarii of type III: 2, distinguished by V. Hatz, correspond to type III: 7, the list of Mazovian hoards containing specimens included in this variety can be extended by 13 more hoards containing a total of 45 whole specimens and five fragments.

In total, denarii of Otto and Adelheid from 989 to the end of the 11th century appeared in at least 51 Mazovian hoards (out of 115 currently known⁵) in a number of 3,340 specimens (1/3 of the German volume without cross denarii). This can be topped with numerous, usually single finds, discovered on many archaeological sites (as grave goods, in cultural layers of settlement nature, as well as the so-called stray finds). In the second half of the 11th century, these denarii in larger hoards accounted for 17–40% of the total German emission (e.g. Dobrzyń nad Wisłą, Płońsk, Mgowo) (Fig. 5).

The cracked Henry II's denarius (1002–1024) from the bishop's mint in Salzburg from 1009–1024 (Hahn 94) should also be included into the oldest coins in the Niedzwiedz deposit (Hahn 1976, pp. 118–123). During this period, the circumstances

⁵ Since the publication of S. Suchodolski's work in 1976, 20 new hoards have been discovered (including 9th–10th centuries – 8, first half of the 11th century – 6, second half of the 11th century – 86) and about 320 individual coins from around 50 locations (Suchodolski 1976). Mikołajczyk (1980, pp. 235–270) presented the circulation of coins in central Poland and Mazovia, but only for the identified specimens, while Mitkowa-Szubert (2002, pp. 28–31) presented a brief overview of the monetary circulation in this area.



5. Map of Poland with hoards containing the Otto and Adelheid denarii (type III: 2a and III: 7).
(Terminus post quem)

Legend: 1. Gwieździn, Człuchów county (983); 2. Stargard – around, Stargard county (983); 3. Stojkowo?, Kołobrzeg county (983); 4. Garsk II, Człuchów county (996); 5. Nieciszewo, Świecie county (1017); 6. Kałdus VIII, Chełmno county (1018); 7. Luzino, Wejherowo county (1030); 8. Kałdus VIII, Chełmno county (1050); 9. Starogard Gdańsk II, Starogard Gdańsk county (1050); 10. Orzeszkowo, Świdwin county (1080); 11. Bonin, Koszalin county (1080); 12. Płock III, Płock county (1010?); 13. Zakrzew I, Sochaczew county (1017); 14. Dzierzążnia, Płońsk county (1018); 15. Zakrzew II, Sochaczew county (1020?); 16. Ozorków, Zgierz county (1023); 17. Chorzeplin, Łęczyca county (1024); 18. Żukowo, Płock county (1024); 19. Mniszki, Łęczyca county (1027); 20. Nowe Brzozowo, Mława county (1027); 21. Zdwórz, Płock county (1034); 22. Oleśnica, Poddębice county (1039); 23. Łask I, Łask county (1040); 24. Żmijewo – Szawły, Mława county (1042); 25. Stryjewo Wielkie, Ciechanów county (1046); 26. Strugienice, Łowicz county (1050); 27. Niedźwiedź, Toruń county (1080); 28. Maszenice, Inowrocław county (1027); 29. Kąpiel, Gniezno county (983); 30. Zagorzyn, Kalisz county (983-995); 31. Kalisz X – Rajsków, Kalisz county (992-1000); 32. Kalisz X – Rajsków?, Kalisz county (995); 33. Powidz, Słupca county (995); 34. Kalisz X – Rajsków?, Kalisz county (999); 35. Gniezno – Osieciec V, Gniezno county (1005); 36. Pomorsko, Zielona Góra county (1006); 37. Ulejno, Środa Wielkopolska county (1010?); 38. Przyborów, Sulęcin county (1010); 39. Greater Polana V (1010); 40. Lisów-

of the mint's operations were quite complicated, with a significant increase in the production of coins, carried out in two ways. In the years 1009-1023, denarii of Bishop Hartwig (991-1023) were minted here simultaneously with the royal issue, and from 1018 to 1026 of Prince Henry V (1004-1026), brother-in-law of Henry II. This situation, and above all the rush and the excess of issues from the mint, meant that many mint stamps were made very carelessly (e.g. a drawing of a royal bust) and the legends were mutilated and distorted (Hahn 1976, p. 122). Such a specimen, characterized by a deformed inscription in the rim of the obverse, appeared in the find in question (Hahn 94).

The coins of Henry II, produced in many mints throughout the Reich, quickly reached Mazovia, mainly through the territory of Greater Poland. The Ldzań hoard, dated after 1002, contains a specimen from a Lower Lorraine mint in Deventer (FMP 2015, p. 185). Until 1024, Henry's issues, both royal and imperial, were deposited in 18 Mazovian hoards⁶, and among the products from several dozen mints circulating there until the end of the century, specimens produced in three centers: Mainz (Franconia), Strasbourg (Swabia) and Regensburg (Bavaria), representing over 50% of the entire monetary mass of this ruler documented in hoards. Hahn 94 denarii minted in Salzburg were deposited in only five Mazovian hoards: Dobrzyków (after 1018; FMP III/30), Kolczyn (after 1024; FMP III/53), Nowy Brzozów (after 1027; FMP III/96), Zdwórz (after 1034; FMP III/207), and Oleśnica (after 1039; FMP III/99)⁷. Moreover, single specimens of denarii of this variety are also known from hoards from Bierzgłowo in Chełmno Land (after 1025; FMP II/10) as well as Stary Dworek and Leszno from Greater Poland. All the aforementioned finds date back to the first half of the 11th century, only the hoard from Jastrzębniki in Greater Poland, deposited after 1089, has a later chronology.

Fig. 5 – continued

wek, Ślubice county (1014); 41. Kinno – Skubarczewo, Słupca county (1021); 42. Leszno – okolice, Leszno county (1027); 43. Kalisz or Olkus – around (1035); 44. Konin – okolice, Konin county (1035); 45. Kalisz X – Rajsków, Kalisz county (1054); 46. Trzebinica II, Jasło county (1018); 47. Kraków VIII, Kraków county (1050?); 48. Łagowica Stara, Opatów county (1090?); 49. Małkowice – around, Wrocław county (1000?); 50. Wińsko, Wołów county (1014); 51. Legnica, Legnica county (1025?); 52. Sobocisko, Oława county (1037); 53. Silesia X (1040); 54. Maniów, Głogów county (1050?); 55. Mózgowo I, Iława county (1010); 56. Poland II (1056) (edited by M. Weinkauf)

⁶ It is not certain whether the Mainz denarius found in Nasielsk (FMP III/91:2) belonged to Henry II or to King Konrad II from 1024-1027. At the same time, Henry's coins were found in 22 hoards in Greater Poland, seven in Pomerania (with a gap after 1010-1023), five in Silesia (1002-1014), and two in Lesser Poland (1017-1018).

⁷ Apart from Mazovia, three specimens appeared only in Stary Dworek (FMP I/239) in Greater Poland.



6. Map of Poland with hoards containing the Cnut the Great denarii (1017-1023) (Quatrefoil type) (*Terminus post quem*)

Legend: 1. Budzistowo III, Kołobrzeg county (1017); 2. Nieciszewo, Świecie county (1025); 3. Biergłowo, Toruń county (1025); 4. Rybaki, Kartuzy county (1027); 5. Luzino, Wejherowo county (1030); 6. Runowo Krajeńskie, Sępólno Krajeńskie county (1035); 7. Rychnowo, Golub-Dobrzyń county (1045); 8. Płocko, Słupsk county (1048); 9. Kałdus VIII, Chełmno county (1050); 10. Stojkowo, Kołobrzeg county (1050); 11. Pomerania VI (1050); 12. Wolin XV, Kamień Pomorski county (1050); 13. Pomerania XI (1050); 14. Pomerania XVI (1050); 15. Szczecin-Świerczewo, Szczecin county (1050?); 16. Mgowo, Wąbrzeźno county (1060?); 17. Gdańsk – around IV, Gdańsk county (1064); 18. Siemyśl, Kołobrzeg county (1064); 19. Zakrzewek, Sępólno Krajeńskie county (1077); 20. Barwice, Szczecinek county (1077); 21. Uznam – Island II, Świnoujście county (1077); 22. Bonin, Koszalin county (1080); 23. Pomerzyn, Drawsko Pomorskie county (1080); 24. Pomerania VII (1088); 25. Kałdus VIII, Chełmno county (?); 26. Malczkowo, Słupsk county (1114?); 27. Stojkowo?, Kołobrzeg county (?); 28. Niechodzin, Ciechanów county (1016); 29. Zakrzew I, Sochaczew county (1017); 30. Rokitno, Kotowice – around, Pruszków county (1020); 31. Żukowo, Płock county (1024); 32. Charlupia Wielka, Sieradz county (1027); 33. Nowe Brzozowo, Mława county (1027); 34. Skurpie, Działdowo county (1027); 35. Zdwórz, Płock county (1034); 36. Oleśnica, Podłębie county (1039); 37. Łask I, Łask county (1040); 38. Ciechanów I, Ciechanów county (1045); 39. Główno, Zgierz county (1046); 40. Stryjewo Wielkie, Ciechanów county (1046); 41. Trzebuń, Płock county (1046); 42. Wyszogród – around, Płock county (1046); 43. Płońsk I, Płońsk county (1055); 44. Dobrzyń, Golub-Dobrzyń county (1060); 45. Niedźwiedź, Toruń

The third West European coin recognized in the deposit, and the best preserved one, was a complete English Cnut's denarius (1016-1035) minted in York by mint master Frithcol around 1017-1023; it was of the *Quatrefoil* type. It was provided with a hole which would indicate that it was used as a pendant before it was deposited into the hoard. As part of the second phase of the inflow of Anglo-Saxon coins (Mikołajczyk 1899, pp. 11-24; see also 1989, pp. 91-94)⁸, the ruler's denarii appeared on Polish soil, as quickly as he assumed power, as Henry I's denarii⁹. They also appeared in the Mazovian hoards relatively early. They arrived here mainly through Greater Poland, as well as through Gdańsk Pomerania, which in this case would be justified especially during the crisis of the Piast state (1034-1047). Their concentration in the central Vistula basin, especially in Kuyavia, indicates that the latter direction of inflow could have been of greater importance (Żak 1967, p. 95; Dzieduszycki 1991/1992, p. 49). In the hoard from Zakrzew II, hidden after 1017, next to two fractions of Ethelred's coins, there was also one specimen minted by his successor in Stamford (*Quatrefoil* type, Ec according to Hildebrand, respectively, North 784; FMP III/204, p. 495). Finds containing only one of the

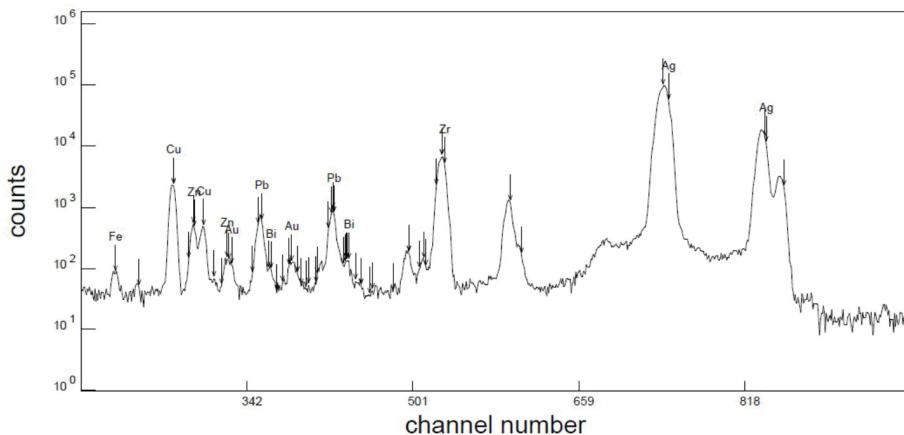
Fig. 6 – continued

county (1080); 46. Stryjewo Wielkie?, Ciechanów county (?); 47. Tum III, Łęczyca county (?); 48. Bydgoszcz III, Bydgoszcz county (1018); 49. Kowal, Włocławek county (1018); 50. Bodzia, Włocławek county (1023); 51. Kuyavia I (1027); 52. Maszenice, Inowrocław county (1027); 53. Baranowo, Inowrocław county (1035); 54. Inowrocław I, Inowrocław county (1035); 55. Łabiszyn, Żnin county (1035); 56. Raciążek, Aleksandrów Kujawski county (1040); 57. Lubraniec, Włocławek county (1050?); 58. Krużwica VII – around, Inowrocław county (1080); 59. Greater Poland II (1013?); 60. Twardów, Jarocin county (1016); 61. Poznań XXI – around, Poznań County (1017); 62. Stary Dworek, Międzyrzecz county (1018); 63. Kinno-Skubarczewo, Słupca county (1021); 64. Łądek II, Słupca county (1027); 65. Wielowieś, Krotoszyn county (1027); 66. Konin – around, Konin county (1028); 67. Rawicz – around, Rawicz county (1035); 68. Wilkowice, Leszno county (1036); 69. Poznań XX – around, Poznań county (1039); 70. Górzno, Leszczno county (1050); 71. Łęki Wielkie, Grodzisk Wielkopolski county (1051?); 72. Kalisz XI – around, Kalisz county (1054); 73. Borzęcice, Krotoszyn county (1061); 74. Przemęt, Wolsztyn county (1061); 75. Ogórzelszczyn, Turek county (1090?); 76. Śluszków, Kalisz county (pocz. XII w.); 77. Grójec-Konin, Konin county (1100); 78. Zielona, Kraków county (1017); 79. Kraków VIII, Kraków county (1050?); 80. Złochowice, Kłobuck county (1055); 81. Zawichost (Trójca), Sandomierz county (1095?); 82. Sobocisko, Oława county (1037); 83. Maniów, Głogów county (1050?); 84. Chociemyśl, Głogów county (1050); 85. Ulesie, Legnica county (1061); 86. Pęgów, Trzebnica county (1063); 87. Sołonki, Dzierżoniów county (1079?); 88. Niewodnica, Kętrzyn county (1035) (edited by M. Weinkauf)

⁸ The English coin flowed in a large stream to the continent in the form of the "heriegeld" charged by Denmark.

⁹ Cnut the Great's denarii were recorded in five Greater Poland hoards deposited in the years 1016-1026; the oldest hoard containing a *Quatrefoil* type specimen was discovered in Twardów (after 1016; FMP I/259). In Pomerania, the oldest Cnut's coins are known from the hoard in Budzistowo II and III (after 1023, FMP 2016; after 1017, FMP 2016). Another *Quatrefoil* specimen was recorded in a deposit from Nieciszewo (about 1025). They appeared in Lesser Poland equally early (Zielona; after 1017, FMP IV/118). In Silesia, in turn, until the second half of the 1030s, we can only find Ethelred's issue, and single Cnut's denarii (*Quatrefoil* and *Short Cross* types) appeared only in the Sobocisko hoard after 1037.

ID	Fe	Cu	Zn	Zr	Ag	Au	Pb	Bi
steklin	2.56	109.86	23.19	478.99	9570.92	3.91	38.72	2.99



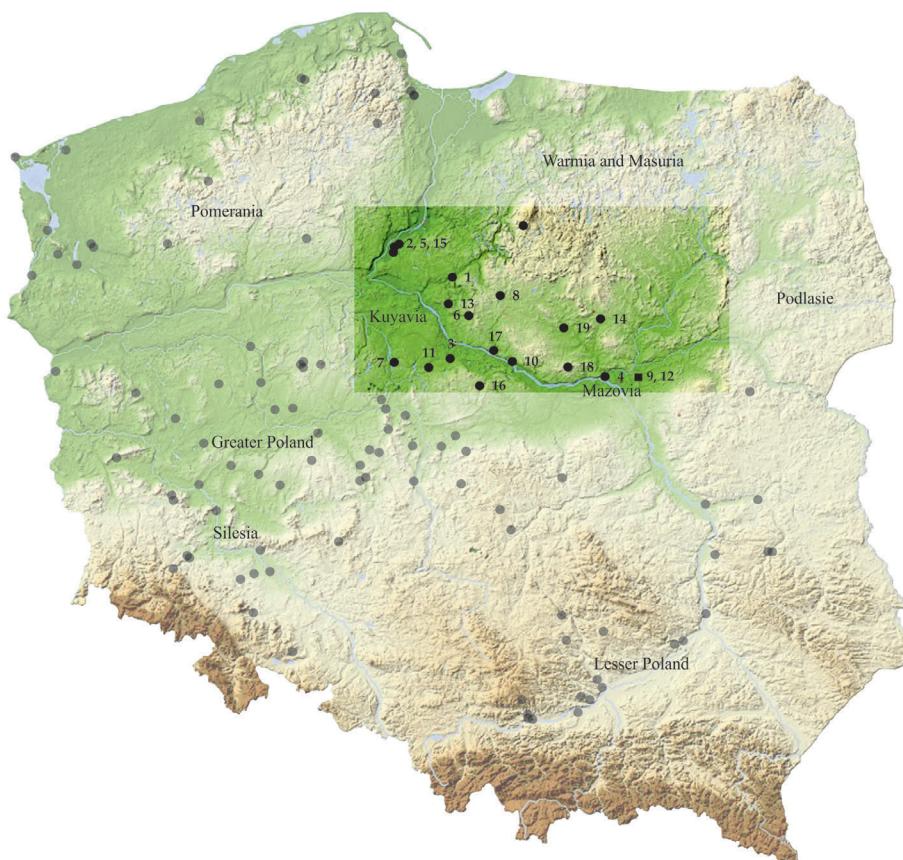
7. The intensity spectrum of the elements in the imitation coin – No. 28 (edited by M. Sawczak)

two rulers' coins are rare. This was the case of a hoard from the vicinity of Rokitno-Kotowice, where a denarius deposited after 1020 came from the mint in York, and was produced by mint master Arncetel (FMP III/138, p. 40). Apart from the Niedźwiedź find, the Cnut's denarii are known for 24 hoards discovered in Mazovia. As a rule, they appeared together with the issues of his predecessor and successors – accounting for almost half of all English coins received here. In total, however, they represented a small component of circulating money (from 2 to 10% of mass)¹⁰.

In Mazovia, the *Quatrefoil* was the most widespread type of denarius, also recorded in the Niedźwiedź find, which accounted for over 1/3 of the mass (almost 40%) of all Cnut issue (including *Pointed Helmet* and *Short Cross* type denarii). The specimens issued by this ruler were especially abundant in hoards from Raciążek (after 1040; FMP III/129), Ciechanów I (after 1045; FMP III/16), Trzebuń (after 1046; FMP III/181), Stryjewo Wielkie (after 1050-1065; FMP III/164A), Płońsk I (after 1055; FMP III/117) and Mgowo (after around 1060; FMP II/138) (Fig. 6).

The most numerous part of the collection are cross denarii of younger types, especially of the V type (13 specimens) and the VI type (7 specimens) (Fig. 3;

¹⁰ The exception is the hoard from Raciążek, dominated by denarii of Cnut (33+2), Ethelred (22), Harold (8) and Harthacnut (2), representing 66.33% of the total deposit. Mention should also be made of the hoard from Trzebuń, where the proportion of English coins among the identified specimens was similar: Cnut (35+1), Ethelred (36+213), Harold (6), Harthacnut (3).

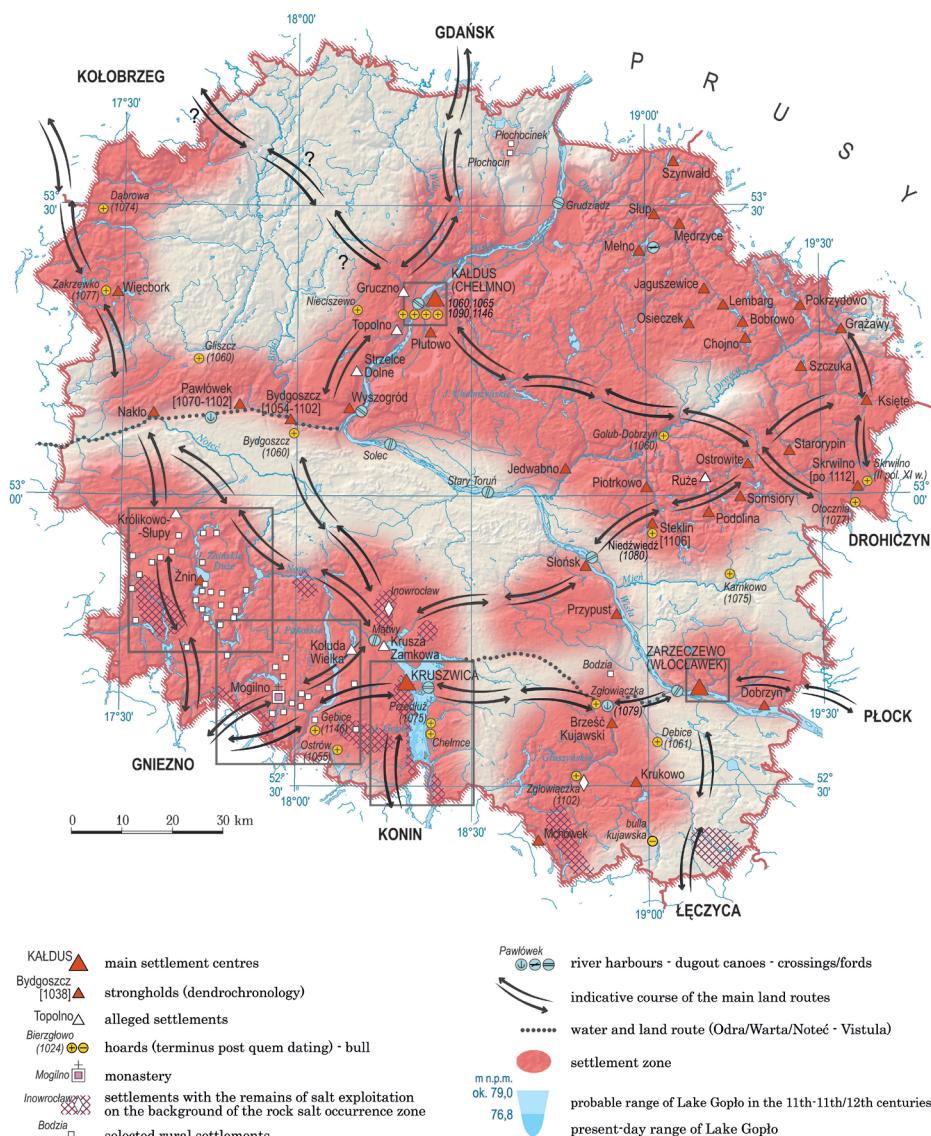


8. Chełmno-Dobrzyń zone, Mazovia and Kuyavia. Hoards with cross denarii dated after 1060.
Hoards numbering according to Table 5 (edited by M. Weinkauf)

Tab. 1). In the assemblage of type V denarii, there were eight whole coins and five halves dated to the following years, respectively: ca 1025–1030 (1 specimen: CNP 575), ca 1030–1050 (1 specimen: CNP 605), ca 1050–1060 (2 specimens: CNP 545 and $\frac{1}{2}$: CNP 559), ca 1060–1080 (4 specimens: CNP 613–619, 659–661 and $\frac{1}{2}$: CNP 614), ca 1080–1105 (2 specimens: CNP 639–640, 650) and three regular, unreadable halves. In the set of “cross pennies”, representing type VI, coins minted in ca 1015–1025 are worth mentioning (1 specimen: CNP 690), around 1025–1060 (4 specimens + $\frac{1}{2}$: CNP 748–755), ca 1065–1100 (1 specimen: CNP 808) and one unreadable half. In addition, one type VII denarius from 1070–1100

3. List of silver jewelry deposited in Niedźwiedź

No.	Description	Dimensions	Literature	Figure No.
1	A completely preserved silver bead with bumps made of two sheet metal, denied on the surface of the hemispheres. On each of the hemispheres there are 9 semicircular nodules, in two rows, soldered to the surfaces surrounded by a rim of small granules. The place where the two hemispheres connect and the two opposite holes are reinforced by a filigree ring surrounded by a row of granules. The space between the nodules was spot-filled with granulation	length 2,31 cm width 1,98 cm weight 4,01 g	Kóćka-Krenz 1993, p. 95-96	3: 29
2	Half-preserved silver bead with bumps in the form of a deformed tin hemisphere. Originally there were 9 nodules in the hemisphere, in two rows, one deformed nodule, soldered to the surface, surrounded by a circle of small granules, has survived. In other places, there are only rims of granules. One of the holes is reinforced with a filigree ring surrounded by a row of granules	length 1,86 cm width 2,90 cm weight 2,17 g	Kóćka-Krenz 1993, p. 95-96	3: 30
3	A fragment of a silver bead with one deformed bump, soldered to the surface, surrounded by a circle of small granules. On the remaining surface, there is only granulation in the form of stripes and wreaths	length 1,46 cm width 1,14 cm weight 0,61 g	Kóćka-Krenz 1993, p. 95-96	3: 31
4	A fragment of a silver bead with one deformed bump, soldered to the surface, surrounded by a circle of small granules	length 1,15 cm width 0,72 cm weight 0,34 g	Kóćka-Krenz 1993, p. 95-96	3: 32
5	A fragment of a silver bead with a single bump soldered to the surface, surrounded by a circle of small granules, preserved. On the remaining surface, there is only granulation in the form of stripes and wreaths	length 2,17 cm width 1,55 cm weight 0,90 g	Kóćka-Krenz 1993, p. 95-96	3: 33
6	Half-preserved oval bead in the form of a deformed tin hemisphere. The convex edges of the bead are surrounded and cut with a rim of small granules. The two opposite openings are reinforced by a filigree ring surrounded by a row of granules	length 2,07 cm width 0,96 cm weight 0,81 g	Kóćka-Krenz 1993, p. 96-97	3: 34



9. Chelmno-Dobrzyń zone and Kuyavia in the second half of the 11th century with a marked network of long-distance routes (as in Chudziak 2016)

(CNP 981) was identified, and two small fragments generally designated as types V-VII (Tab. 1) (Kilger 2000)¹¹.

Finally, there is a small fragment of a denarius, probably of West Slavic origin, on which only the letter D is legible in an unusual arrangement, while the other side is very worn (Fig. 3: 3; Tab. 1). This specimen is interpreted as the so-called imitation and is of good silver quality, not worse than the issue of most of the cross pennies popular in the second half of the 11th century (Fig. 7; Kędzierski 2021)¹². The imitations of Western European coins, supplementing the mass of silver in circulation, were a frequent and sometimes quite substantial component of Mazovian hoards. In total, they were registered in as many as 40 deposits, and the oldest of them comes from the fourth quarter of the 10th century, e.g. Ciechanów III (after ca 975; FMP III/18) (Fig. 7).

The above studies, including the tables, show that the basis for determining the chronology of the hoard from the near stronghold settlement in Niedźwiedź represent the younger varieties of V-type denarii minted in the years 1060/70-1090, and around 1080-1105. We can therefore assume that the deposit in question was hidden after 1080, most likely in 1080-1105. Cross denarii prevailed, the “hard currency”, as Dariusz Adamczyk (Adamczyk 2018) described them, which accounted for 92% of German issue, at the same time representing less than 83% of the entire assemblage. Therefore, the structure of other Mazovian hoards deposited after 1060 in the basin of the middle Vistula is worth analyzing (Fig. 8; Tab. 2). Almost all of them have been found in western Mazovia, Chełmno Land and Kuyavia, clearly in concentration, especially against the background of the neighboring areas almost devoid of such finds (Warmia and Mazury, Podlasie, a significant part of East Pomerania). In this zone, 19 hoards attributed to the discussed time horizon have been discovered so far, of which 7 were deposited in the third quarter of the 11th century, and the rest in the fourth quarter or early in the 12th century. They were of various sizes, from 3 specimens – Kałdus-Uśc (after around 1060; FMP III/97) to almost 4,500 pieces – Rybitwy (late 11th century; FMP III/142) (Fig. 8). These finds mark the northeastern limit of the dispersal of hoards containing cross denarii, commonly found in central Poland, Greater Poland and Silesia (Kędzierski 2021).

As Table 2 shows, the share of cross denarii in western Mazovian hoards after 1060 ranged from 70 to 100%, and while the issues that can be dated to the second half of the 11th century covered at least half of the assemblage, there was more

¹¹ In the descriptive table in the literature section, where there were discrepancies, the date according to A. Kędzierski, used for the description of the hoard from Słuszków (FMP I/235), is also given.

¹² The examination of Miroslaw Sawczak, Ph.D., was carried out at the Department of Photophysics of the Institute of Fluid-Flow Machinery of the Polish Academy of Sciences in Gdansk, using a portable X-ray fluorescence spectrometer (XRF) constructed at the Department of Photophysics IMP of the Polish Academy of Sciences in Gdansk.

likely around 80-100%, not only among cross pennies but also entire deposits in the monetary part¹³. The only exception is a hoard from the vicinity of Płock (II), hidden after 1079, in which about two thousand denarii from the Krakow mint of Władysław Herman were recorded, while a small addition was made of a few ducal specimens of Bolesław II from around 1070-1076, and cross pennies of the V-VII types (FMP III/111)¹⁴. The structure of the hoard from the distant Wodzinia, in south-west Mazovia (around 1080), is the closest to the Niedzwiedz deposit. It included three German denarii: one of Henry II and two of Otto and Adelheid, 55 cross denarii of the IV-VII types, all minted after 1060, and one West Slavic imitation of the coins of Otto and Adelheid from 1020-1050 (FMP III/199). It is noteworthy that, unlike the Niedzwiedz deposit, none of the Mazovian hoards with cross denarii contained – any specimens of Arab coins that had already completely disappeared from circulation.

Like many hoards in Mazovia, this one contained silver, largely deformed jewelry of total weight amounting to 8.84 grams. It consisted of one bead with knobs, complete, and four fragments of other beads of a similar type, as well as a fragment of an oval bead (Fig. 3: 29-34; Tab. 3; Chudziak and Weinkauf 2019, p. 118). There are numerous analogies between all these valuables on the West Slavic territory, especially in Greater Poland, Mazovia and central Poland. Their cultural contexts indicate that they were widespread in this area from the 10th to the 12th centuries (Kóčka-Krenz 1996, Maps 41-42). They were most often an element of silver deposits where cross denarii prevailed. The closest hoards in terms of territory, resembling the Niedzwiedz find, is Kałdus IX where, apart from one Frisian denarius and 12 cross denarii, there were also single fragments of damaged silver beads (FMP II/94; after 1090).

CONCLUSION

What was the origin of the two-form silver deposit discovered near the outer foot of the stronghold's rampart in Niedzwiedz/Steklin? Its total weight, amounting to less than 30 grams of silver, indicates a small deposit, of relatively low value, roughly corresponding, according to the instructive interpretation by Arabic writer Abu Hamid, to the equivalent of about 150 hairless squirrel skins or the same number of loaves of bread (Rus', first half of the 12th century), or, according to Corvey Account, about twelve fox skins (the Elbe River area, 11th/12th centuries; Tabaczyński 1959, pp. 46-47, see also Adamczyk 2004, pp. 156-157). Apart from

¹³ A similar situation in the other provinces.

¹⁴ Unfortunately, the information about this hoard is very laconic. We know it only from Wittyg's account, where he states that in this hoard "... there was a small number of cross pennies of three basic types (Wittyg 1921, pp. 17, 23-25), in addition very worn, which clearly indicated their earlier origins" (cf. Suchodolski 2003, pp. 34-35).

the aforementioned hoard in Kałdus, in terms of the number of objects, weight, structure and context of occurrence, the discussed collective find, does not have a close analogy in central Poland (Kuyavia, Mazovia and the Chełmno Land). In general, it should be noted that there are few well-documented finds in this area that could be associated with synchronized settlements and a specific stratigraphic context. The few known ones come mainly from the second half of the 11th century (including Pawłówek II, FMP II/156; Kruszwica II, FMP I/118?, Zgłowiączka I, after 1079, FMP III/208). In this case, the owners of the silver items must have been residents of major settlements, especially the neighbouring strongholds, members of the elite participating in social exchange, and beneficiaries of the fiscal and economic system in the Piast era (e.g. stronghold knights)¹⁵. It is also possible that smaller deposits were owned by craftsmen and wealthy peasants (Kiersnowski 1960, p. 464). Most often, however, they are associated with merchants and monetization of local and regional exchange (Dzieduszycki 1995, p. 141). According to Ryszard Kiersnowski, “it is understandable that this very group could, the earliest and to the most significant degree, use money as a medium of exchange and concentrate a relatively large percentage of it in their hands” (Kiersnowski 1960, p. 453). However, this indicates local merchants operating in the neighbourhood of the nearby strongholds rather than “foreign” merchants, handling supra-regional transactions and operating on the long-distance market (Kiersnowski 1960, p. 462). Therefore, the communication network that enabled the flow of people and goods, and thus the development of trade contacts, is worth a closer look. In Dobrzyń Land, the spatial distribution of strongholds from the second half of the 11th century reflects the course of local roads and main land routes, connecting Mazovia with Chełmno Land and Kuyavia (Fig. 9; Chudziak 2016, Fig. II.54).

One of them probably ran along Lake Steklińskie and led towards the crossing on the Vistula River, located near the then settlement in Słońsk (today's Ciechocinek region). There are some indications of a path of inflow of Arabian dirhams from northern Mazovia in the fourth quarter of the 10th century, reflected in the presence of Samanid coins in Dobrzyń Land, including the Manṣūr ibn Nūḥ specimen in the deposit in question. Assuming the Bug-Vistula route, their transmission in the opposite direction, i.e. from the Vistula to the east, into Dobrzyń Land, cannot be ruled out. This route was probably also actively used during the mass migration of the population of Greater Poland beyond the Vistula River, during the so-called pagan reaction, as recorded twice in the account of Gallus. It was also here that tributes collected from the stronghold in Steklin or Rypin, further east, were transported for the Benedictine monks from Mogilno. The Niedźwiedź deposit connects well with this concept, and also justifies it. It was first hidden at the early stage of monetization of the market and the establishment of a network

¹⁵ On the circulation of bullion in Piast society at the turn of the eleventh and twelfth centuries (see Adamczyk 2017).

of fairs mentioned *expressis verbis* in the so-called Mogilno Falsification. According to that document, every ninth denarius obtained from the local market fee, and other monetary income, was used as a benefit for the Benedictines. This is probably the oldest reference in Polish written sources about a cash rent paid with coins, largely coinciding in time with the discussed find (Kiersnowski 1960, p. 452). However, we do not know the circumstances of the collected silver in the archaeological context. A passage from Helmold, repeatedly quoted in literature on the subject, may be relevant to the situation, according to which “whenever the turmoil of war sounds, they (the Slavs) hide in their pits all threshed grain, silver, gold and valuables” (Helmold II, 13). Quite hypothetically, in this context, it can be considered whether its hiding was not related to the events of 1093 but the rebellion of the Kruszwica people in nearby Kuyavia against the legitimate ducal authority (Gall II. 4-5). We assume that this deposit, as a result of incidental and forced actions, represents more money circulation than literal economic accumulation or other activities, e.g. of mythical-magic nature (Tabaczyński 1987, p. 226). Its structure reflects the composition of the monetary mass circulating in the Mazovian market in the last two decades of the 11th century, where cross denarii minted after 1050 clearly gained an advantage over older issues.

The hoard from Niedźwiedź should therefore be seen as an element illustrating the state of advancement in the broadly understood economic activity of the local community, and as a material proof of specific social relations and external trade contacts during the reign of Duke Władysław Herman, or his son Zbigniew. In the functional and spatial sense, it should be associated with the settlement constituting the immediate base of the stronghold, which, according to the most commonly adopted interpretation, plays the role of the administrative, economic and judicial centre, managed by the stronghold officials appointed by the ruler's decision. Its location within the settlement structure of the north-western part of Dobrzyń Land would indicate the implementation in this area, colonized to a large extent only around the mid – 11th century, of the concept of building a system of strongly fortified military strongholds, manned by military crews and with a developed economic base of crafts and a marketplace.

BIBLIOGRAPHY

Sources

- Bogucki M., Ilisch P., Suchodolski S. von Szczurek T., Paszkiewicz B., Tabaka A., Bogucki M., Ilisch P., Malarczyk D. 2017, *Frühmittelalterliche Münzfunde aus Polen: Inventar I. Grosspolen*, Warszawa (further referred to as FMP I).
- Bogucki M., Ilisch P., Suchodolski S. von Horoszko G., Piniński J., Ilisch P., Malarczyk D., Nowakiewicz T. 2016, *Frühmittelalterliche Münzfunde aus Polen: Inventar II. Pommern*, Warszawa (further referred to as FMP II).

- Bogucki M., Ilisch P., Suchodolski S. von Gorlińska D., Suchodolski S., Bogucki M., Ilisch P., Malarczyk D., Nowakiewicz T. 2015, *Frühmittelalterliche Münzfunde aus Polen: Inventar III. Masovien, Podlachien und Mittelpolen*, Warszawa (further referred to a FMP III).
- Bogucki M., Ilisch P., Suchodolski S. von Reyman-Walczak B., Ilisch P., Malarczyk D., Nowakiewicz T. (Kleinpolen); von Butent-Stefaniak B., Ilisch P., Malarczyk D., Nowakiewicz T (Schlesin) 2013, *Frühmittelalterliche Münzfunde aus Polen: Inventar IV. Kleinpolen, Schlesin*, Warszawa (further referred to a FMP IV).
- Bogucki M., Ilisch P., Suchodolski S. von Bogucki M., Ilisch P., Malarczyk D., Kulesza M., Piniński J., Nowakiewicz T. (Ermland und Masuren); von Bogucki M., Ilisch P., Malarczyk D., Chabryk P., Kędzierski A., Kulesza M., Nowakiewicz T., Wawrzczak R. (Fundaus Polen 2011–2013. Addenda et corrigenda) 2013, *Frühmittelalterliche Münzfunde aus Polen: Inventar V. Ermland und Masuren. Fundaus Polen 2011–2013. Addenda et corrigenda*, Warszawa (further referred to a FMP V).
- Dannenberg H. 1876, *Die deutschen Münzen der sächsischen Und fränkischen Kaiserzeit*, I, Berlin (further referred to a Dbg).
- Gumowski M. 1939, *Corpus Nummorum Poloniae I. Monety X i XI w.*, Kraków (further referred to a CNP).
- Zakrzewski I. 1881, *Kodeks Dyplomatyczny Wielkopolski*, IV, Poznań (further referred to a KDW).

Literature

- Adamczyk J. 2004, *Placidła w Europie Środkowej i Wschodniej w średniowieczu. Formy, funkcjonowanie, ewolucja*, Warszawa, Wydawnictwo Neriton, Instytut Historii PAN.
- Adamczyk D. 2017, *Pieniądz czy strategiczny instrument władzy? Obieg kruszcu w społeczeństwie piastowskim przełomu XI i XII wieku, załamanie w dopływie denarów z Saksonii a ekspansja Bolesława Krzywoustego na Pomorze*, „Przegląd Zachodniopomorski” 32 (2), pp. 143–167.
- Adamczyk D. 2018, *Srebro i władza. Trybuty i handel dalekosiężny a kształtowanie się państwa piastowskiego i państw sąsiednich w latach 800–1100*, Warszawa, Wydawnictwo Naukowe PWN.
- Andrałoń M., Andrałoń M., Silska P., Szyngiera P. 2011, *Odkrycia skarbów wczesnośredniowiecznych z terenu wielkopolski. Kontekst archeologiczny znalezisk*, Poznań, Wydawnictwo Poznańskie.
- Chudziak W. 2016, *Archeologia wczesnego średniowiecza*, in: A. Radzimiński (ed.), *Dzieje regionu kujawsko-pomorskiego*, Toruń, TNOiK, pp. 111–191.
- *The Piast castrum Steclyn – on the way to Prussia*, „Przegląd Archeologiczny” (in print).
- Chudziak W., Kaźmierczak R., Niegowski J. 2011, *Podwodne dziedzictwo archeologiczne Polski. Kata-log stanowisk (badania 2006–2009)*, Toruń, Wydawnictwo Fundacji Amicus Universitatis Nicolai Copernici.
- Chudziak W., Weinkauf M. 2019, *Wczesnośredniowieczne grodziska w Polsce*, t. 7. Powiat toruński, województwo kujawsko-pomorskie, Toruń, Wydawnictwo Naukowe UMK.
- Dzieduszycki W. 1991/1992, *Społeczno-ekonomiczne uwarunkowania powiązań Pomorza z Kujawami we wczesnym średniowieczu*, „Slavia Antiqua” 33, pp. 41–63.
- 1995, *Kruszce w systemach wartości i wymiany społeczeństwa Polski wczesnośredniowiecznej*, Poznań, IAiE PAN.
- Hahn V. 1976, *Moneta Radespondensis. Bayerns Münzprägung im 9., 10. und 11. Jahrhundert*, Braunschweig.
- Hatz V. 1961, *Zur Frage der Otto-Adelheid Pfennige. Versuch einer Systematisierung auf Grund des schwedischen Fundmaterials*, in: N.L. Rasmussen, B. Malmer (eds.), *Commentationes de Nummis Saeculorum IX-XI in Suecia Repertis I.* Stockholm, pp. 105–144.
- Ilisch P. 2005, *Überlegungen zur Datierung der Otto-Adelheid-Pfennige der Stufen Hatz II, III und IV, „Wiadomości Numizmatyczne”* 49 (1), pp. 39–62.
- 2017, *Beobachtung zu frühen Otto-Adelheid-Pfennigen*, in: M. Bogucki, W. Garbaczewski, G. Śnieżko (eds.), *Nummi et Humanitas. Studia ofiarowane Profesorowi Stanisławowi Suchodolskiemu w 80. rocznicę urodzin*, Warszawa, pp. 179–200.
- Kędzierski A. 2021, *Skarb Szyszków I. Denary krzyżowe z przełomu XI i XII wieku*, Warszawa, IAiE PAN.

- Kiersnowski R. 1960, *Pieniądz kruszcowy w Polsce wczesnośredniowiecznej*, Warszawa, PWN.
- Kilger Ch. 2000, *Pfennigmärkte und Währungslandschaften. Monetarisungen im sächsisch-schlawischen Grenzenland ca. 965-1120*, in: B. Malmér, K. Jonsson (eds.), *Commentationes de nummis saeculorum IX-XI in Suecia Repertis, Nova Series 15*, Stockholm.
- Kowalczyk-Heyman E. 2018, *Gród Osielsk–rozwiązywanie ostatniej zagadki części dziewięcinej tzw. falsyfikatu mogileńskiego, „Wiadomości Archeologiczne”* 69, pp. 197-204.
- Kowalewski J. 2003, *Kontakty regionalne ziemi dobrzyńskiej we wczesnym średniowieczu w świetle struktury miejscowych depozytów srebrnych*, in: W. Chudziak (ed.), *Studia nad średniowiecznym osadnictwem ziemi chełmińskiej* 5, Toruń, Wydawnictwo Naukowe UMK, pp. 151-186.
- Kóćka-Krenz H. 1996, *Bizuteria północno-zachodniośląwska we wczesnym średniowieczu*, Poznań, Wydawnictwo Naukowe UAM.
- Kürbis B. 1978, *Pogranicze Wielkopolski i Kujaw w X-XII wieku*, in: C. Łuczak (ed.), *Studia z dziejów ziem mogileńskiej*, Poznań, Wydawnictwo Naukowe UAM, pp. 65-111.
- Labuda G. 1978, *Początki klasztoru w świetle źródeł pisanych*, in: K. Nowiński (ed.), *Materiały sprawozdawcze z badań zespołu pobendytyńskiego w Mogilnie*, Warszawa, pp. 21-59.
- Lalik T. 1967, *Organizacja grodowo-prowincjonalna w Polsce XI i początków XII wieku*, in: A. Rutkowska-Płachcińska (ed.), *Studia z dziejów osadnictwa* 5, Wrocław, pp. 5-51.
- Lewandowska J. 2016, *Odkryte skarby, nierozwiążane zagadki i nowe perspektywy badawcze Starego Rypina*, in: J. Lewandowska (ed.), *Dziedzictwo archeologiczne północnej części ziemi dobrzyńskiej*, Toruń, Adam Marszałek, pp. 97-124.
- Łowmiański H. 1985, *Początki Polski. Polityczne społeczne procesy kształtowania się narodu do początku XIV*, Warszawa, Wydawnictwo Naukowe PWN.
- Markov A.K. 1896, *Inventarnyj Katalog Musulmanskih Monet' Imperatorskago Ermitazha*, S. Petersburg.
- Mikołajczyk A. 1980, *Początki obiegu denarowego w Polsce średkowej i na Mazowszu*, „Prace i Materiały Muzeum Archeologicznego i Etnograficznego”, Seria Archeologiczna 27, pp. 235-270.
- Mikołajczyk A. 1988, *Anglo-saxon coins in eleventh-century in Poland*, „British Numismatic Journal” 58, pp. 11-24.
- Mikołajczyk A. 1989, *Anglosaskie monety w Polsce wczesnośredniowiecznej*, „Prace i Materiały Muzeum Archeologicznego i Etnograficznego”, Seria Numizmatyczna i Konserwatorska 9, pp. 87-102.
- Mitkowa-Szubert K. 2002, *Wczesnośredniowieczny skarb monet z Naruszewa*, Warszawa, Wydawnictwo Naukowe Semper.
- Modzelewski K. 2000, *Organizacja gospodarcza państwa piastowskiego X-XIII wiek*, Poznań, PTPN.
- North J.J. 1994, *English Hammered Coinage, Vol. I, Early Anglo-Saxon to Henry III c. 600-1272*, London, Spink and Son Ltd.
- Oriental Coins. 2022, „Oriental Coins Database”, Accessed December 20, <https://www.zeno.ru/showphoto.php?photo=46793>.
- Płocha J. 1969, *Najdawniejsze dzieje opactwa benedyktynów w Mogilnie*, Wrocław, Zakład Narodowy im. Ossolińskich.
- Powierski J. 1996, *Prusowie, Mazowsze i sprowadzenie Krzyżaków do Polski, I*, Malbork, Muzeum Zamkowe w Malborku.
- Rundberg J. 2000, *Otto-Adelheid-Pfennige. Ettförsök till revidering av enomdebatterad tysk myntgrupp från vikingstiden*, Stockholm, Arkeologiska Institutionen Stockholms Universitet.
- Sobczyk P. 2015, *Badania wykopaliskowe wielokulturowego kompleksu osadniczego w Kołacie-Rybniakach, stanowisko 2, w ziemi dobrzyńskiej*, in: M. Wojciechowski, P. Nowakowski, D. Kuźnicka (eds.), *Zapiski kujawsko-dobrzyńskie*, 30. *Osadnictwo i demografia na Kujawach wschodnich i w ziemi dobrzyńskiej*, Włocławek, pp. 31-68.
- Stern S.M. 1967, *The coins of Āmul*, „The Numismatic Chronicle” Seventh Series (7), pp. 205-278.
- Suchodolski S. 1976, *Prosperity Mazowsza w XI w świetle źródeł numizmatycznych*, in: S.K. Kulczyński (ed.), *Cultus et cognitio. Studia z dziejów średniowiecznej kultury*, Warszawa, p. 537-545.
- Suchodolski S. 2003, *Dawne skarby na nowo odnalezione. Próba rekonstrukcji zespołów*, in: M. Gąca-rzewicz (ed.), *Znaleziska monet i metody ich badań. XII Ogólnopolska Sesja Numizmatyczna w Nowej Soli*, Nowa Sól, 24-38.

- Tabaczyński S. 1959, *Zagadnienia klasyfikacji wczesnośredniowiecznych znalezisk pieniądza kruszcowego w Polsce*, „*Wiadomości Numizmatyczne*” 3 (1-2), pp. 41-47.
- 1987, *Archeologia Średniowieczna. Problemy. Źródła. Metody. Cele badawcze*, Wrocław.
- Talarczyk-Andrałoż M., Andrałoż M. 2010, *Wyniki rozpoznania dyspersji elementów skarbu wczesnośredniowiecznego na stanowisku Gąski 18, gm. Gniewkowo, woj. kujawsko-pomorskie przeprowadzonego w październiku 2010 r.*, Unpublished report on file at Instytut Archeologii UAM, Poznań.
- Wittig W. 1921, *Wykopalisko nad Drwęcy*, „*Wiadomości Numizmatyczno-Archeologiczne*” 9, pp. 5-24.
- Zambaur von, E. 1968, *Die Münzprägungen des Islamzeitlich und örtlich geordnet. I. Band. Der Westen und Osten bis zum Indus mitsynoptischen Tabellen*, Wiesbaden.
- Żak J. 1967, „*Importy*” skandynawskie na ziemiach zachodniopolskich od IX do XI wieku, Poznań.