

MOLDAVIAN COINS IN THE 15TH CENTURY POLAND

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The numismatic sources provide an evidence of the economic, political and even cultural relations between various regions, provinces, countries and states in the past. This concerns also the relations between Poland and Moldavia in the late middle ages, especially in the 15th century. They are witnessed by the finds of the Moldavian coins registered on the territory of the Crown of the Polish Kingdom (called later Crown) ranging from the Great Poland to Red Ruthenia inclusively. The study of the late medieval coinage of Poland with the special attention paid to the 15th century, i.e. to the early Jagiellon reigns in Poland.

The monetary reforms which changed the late medieval mintage of Latin Europe have introduced a bimetallic systems of money founded on the golden floren or ducat and the silver major coins and those of smaller denominations. Thus not only the previous, debased denarii but also denarii grossi, the groats with their divisions were in use. In Poland the European reform, called the great grossi reform¹ was revealed in the form of the Prague grossi — the Bohemian silver pieces struck from 1,300 in Kutna Hora. Soon they became dominant on the Polish money markets of Silesia, Little Poland, Great Poland, Central Poland, some west — southern parts of Mazovia, as well as of Red Ruthenia as this region was incorporated to the Crown of Polish Kingdom. The Northern regions of Poland remained in the zone of the circulation of bracteates of the Teutonic Order, which in 1306 conquered the Gdańsk Pomorze cutting Poland off the Baltic sea. A consolidation of the Polish State — divided during the 12th and 13th century into small Piast princedoms — was carried out — with good results — by the Kujavian prince Władysław the Elbow in the first third of the 14th century. He managed to unite Little Poland, Great Poland, Kujavia, Central Poland composed of the Łęczyca and Sieradz lands. His coinage was simply denar struck on both sides or on one side (bracteate) only. Small bullion resources enabled him to introduce the domestic grossi. This function was done the above mentioned Prague grossi flowing to Poland in great quantities. An exiguous reflection of the transformations of advanced monetary systems was an appearance of the Polish golden florens about 1331. As quickly as they appeared as quickly they disappeared from the Polish late medieval mintage since the next Polish gold coin was struck as late as in 1501². Polish silver coinage was reformed ca 1367 during the reign of Casimir the Great [1333—1370], the last Piast ruler of Poland. A hierarchy of coin values was constructed then according to the following relations: 1 grossus = 2 quartense (medii — grossi) = 4 quartergrossi = 16 denarii = 32 obols. The Polish grossi, (weight 3.089 g, silver proof 0.844), struck in Cracow mint, were following the type of the Prague grossi. They displayed on an obverse a crown encircled with the double legend KAZIMIRUS PRIMUS DEI GRATIA REX POLONIE and on reverse the Polish Eagle encircled with inscription GROSSI CRACOVIENSES³. They were made in reduced number so they had no influence upon the structure of coined silver circulating in Poland. After the King's death the issue was abandoned. Larger role in the Casimir the Great's reform was played by the quartenses. They were struck in Cracow and perhaps in Poznań or some other Great

¹ R. Kiersnowski, *Data i kształt reform monetarnych Kazimierza Wielkiego*, WN, XII, 1968; idem, *Wielka reforma monetarna XIII — XIV w.*, część I, W-wa 1969; idem, *Okres wielkich reform monetarnych XIII i XIV wieku*, [in:] *Mennictwo średniowieczne. Zarys mennictwa europejskiego*, vol. VII, ed. L. Morawiecki, Kraków, 1984, pp. 219—228.

² R. Kiersnowski, *Dukaty Władysława Łokietka*, WN, VIII, 1964; idem, *Złoto na rynku polskim w XIII i XIV w.*, WN, XVI, 1972.

³ R. Kiersnowski, *Grosze Kazimierza Wielkiego*, WN, XVII, 1973.

Polish mint too (weight 1.544 g, silver proof 0.625). Since they were debased soon, they accused some troubles in the exchange providing the necessity of *additiones* i.e. the surcharges in the monetary transactions. They were not struck after the King's death neither. The quarter-grossi (weight 0.772 g, silver proof 0.562) were struck in small quantities and had no economic significance. The denarii and their halves — obols were the smallest denominations in the new system towards the end of the Piast monarchy. The reform was broken in 1370 since it was not continued by the Casimir the Great's successor—the Hungarian King Louis d'Anjou. Neither his reign in Poland (1370—1382) nor her daughter Jadwiga's (Hedwig) (1384—1386)⁴ provided anything else except the denarii.

The hierarchic monetary system worked only few late years of Casimir the Great, but his reform fixed the unity of a state eliminating the previous differences between the Little- and Great-Polish mintages. The so called Wislica charter from 1347 stated in the King's name... *statuimus... quod una moneta in toto Regno nostro debeat haberi, quae debet esse perpetua and bona in valore and pondere...* In the 14th century Poland the municipal mints were working besides the Crown mint of Cracow. Those mints produced the small coins, the denarii: in Poznań under Casimir the Great, Louis d'Anjou and Jadwiga, in Kalisz under Casimir the Great and in Wschowa under Jadwiga. All of them were situated in Great Poland. During the reign of Louis d'Anjou the minting privilege was given to Władysław prince of Opole, representing the King's policy in Poland. In the Seventies he struck the denarii in Wieluń⁵.

The monetary unification comprised also the Red Ruthenia, a new province incorporated to the Crown of the Polish Kingdom during the reign of Casimir the Great. The mint that started in Lvov is a direct result of joining Poland. The medii-grossi of a standard similar to the Crown quartenses were made in Lvov. They had the same weight 1.544 g, but higher content of silver (0.875) than the Crown pieces. The regional distinctness in the Lvov mintage was visible in the copper Ruthenian denarii, unknown in Central Europe, but reflecting the influences of different Eastern minting zone regarding pure copper in the monetary circulation. The Ruthenian coins were struck under Casimir the Great and Louis d'Anjou when in the latter case the coins bore the name of Władysław, the prince of Opole⁶. The Ruthenian quartenses struck in the 70-ties weighed 1.236 g and their silver proof was 0.875, then those from the late 70-ties and early 80-ties had weight reduced to 1.030 g⁷. In Mazovia; then still independent principedom the prince Siemowit III (1341—1381) and Siemowit IV (1381—1426) used to strike unnumerous denari. Silesia and West Pomerania were beyond the political influence of Poland.

Certain activation of mint out-put took place during the reign of the first Jagiellon King of Poland Władysław Jagiello (1386—1434)⁷. One's attention should be paid to the issues of the Crown medii-grossi (demi-grossi), struck in Cracow in two periods: between 1394 and 1406 (6 types) and between 1431 and 1434 (5 types) as well as in Wschowa from 1416 to 1422 (3 types). They were struck in such considerable quantities that they fulfilled the need of domestic monetary market as much as they manage to replace the Prague grossi. The demi-grossi displayed a simple type: on obverse a crown encircled with MONE WLADISLAI and on reverse the Polish Eagle and a legend REGIS POLONIE. The coins the 1st Cracow phase weight approximately 1.57 to 1.72 g and the silver proof was 0.320—0.493; those of the Wschowa phase weight 1.47—1.56 g on average and the silver proof was 0.250—0.394; then those of the 2nd Cracow phase weight from 1.54 to 1.58 g with silver proof 0.251—0.430. Besides the Crown demi-grossi the Crown small quartenses were struck. Until 1398 they were equal to 4 denarii, but later only to 3 denari and therefore they were called the ternarii. The Crown ternarii were struck in Cracow in two periods: 1393—1398 and 1406—1410. They displayed on obverse the Jagiellon arms (double cross) and inscription MONE WLADISLAI and on reverse — the Eagle and legend REGIS POLONIE. Their weight was from 0.62 to 0.69 g and silver proof oscillated from 0.277 to 0.405. In the Crown mint in Cracow the denarii were finally struck displaying on front side the crown and on the back side—the Eagle. The Crown denarii struck from 1389 to 1395 weight 0.36 g with silver proof 0.116—0.153; those struck in the years 1390—1414 weight 0.27 g and silver proof was 0.116—0.387; then those from the period 1431—1434 weighed 0.33 g on average and silver proof was 0.129—0.150.

Władysław Jagiello conceded the minting privilege to two Great Polish towns: in 1404 to Wschowa and in 1410 to Poznań. Both were striking the denarii. The Wschowa municipal denarii displayed a shield with the Jagiellon double cross and the Eagle on opposite side, the Poznań municipal

⁴ A. Mikolajczyk, *Denary wieluńskie Władysława Opoleczyka* [in:] *Studia nad kulturą materialną wieków od XIV do XVI, Acta Archaeologica Lodziensia*, no. 32, Wrocław-W-wa-Kraków-Gdańsk-Lódź, 1986, pp. 23—32.

⁵ W. Bagiński, *Moneta na Rusi Czerwonej od połowy XIV do połowy XV w.*, Warszawa, 1977. Manuscript at the Historical Department of Warsaw University.

⁶ Z. Żabiński, *Systemy pieniężne na ziemiach polskich*. Wrocław-Warszawa-Kraków-Lódź-Gdańsk, 1981, table 16.

⁷ S. Kubiak, *Monety pierwszych Jagiellonów [1386—1444]*, Warszawa-Wrocław-Kraków, 1970; idem *Okres stabilizacji w mennictwie europejskim w XV wieku*, pp. 285—304.

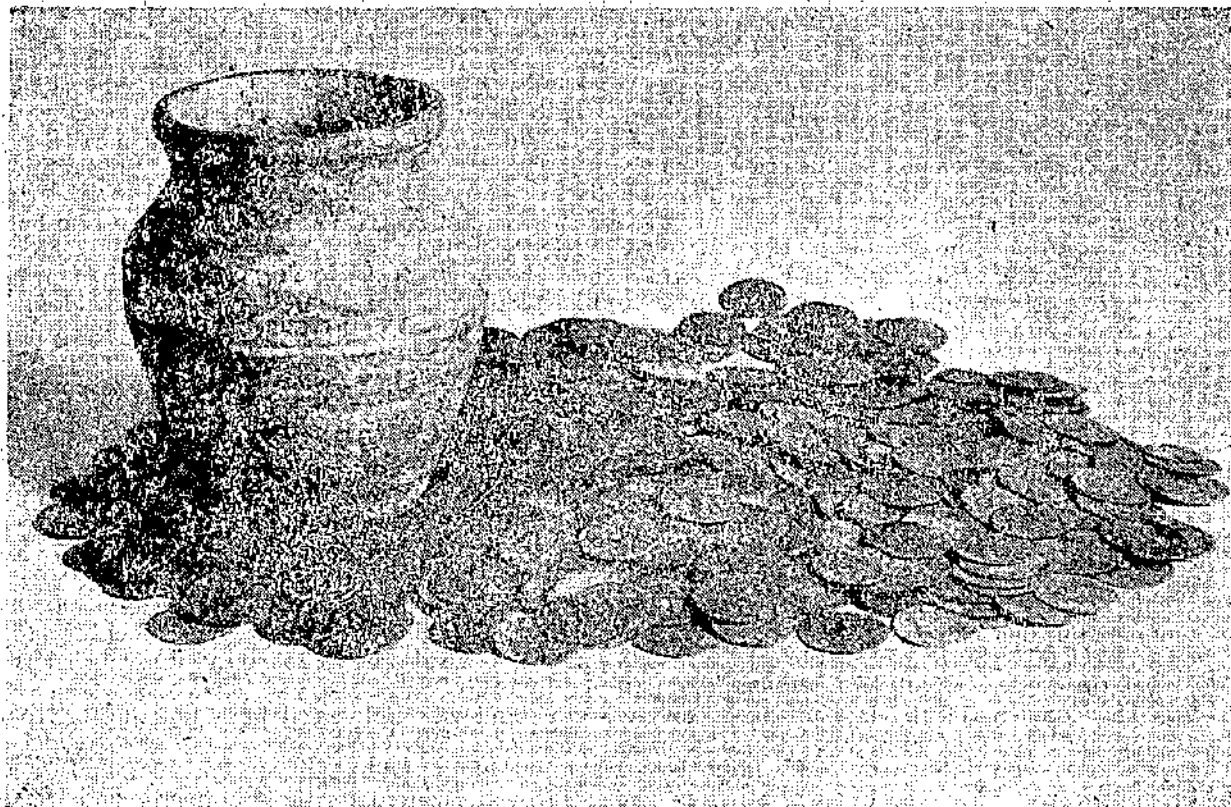


Fig. 1. The Piłsny hoard buried after 1434 and the Moldavian coin.

pieces presented the town arms on front and the Eagle on back side. The average weight of the former pieces was 0.27 g and silver proof 0.175; that of the latter was 0.21 g and silver proof 0.317—0.337.

The Ruthenian mintage was still developing. In the Lvov mint the Ruthenian quartenses were coined in the years 1388—1394. They displayed on obverse a lion encircled with *MONETA RUSSIE* and on reverse the Eagle encircled with *WLADISLAUS REX*. They weigh 0.95 g and silver proof was 0.723—0.788. Later, from 1394 to ca 1414 (with an interruption in 1308 when the Lvov mint was burnt) the Lvov demi-grossi were issued. On obverse they presented a lion and a legend *MONETA LEMBURGE*, on reverse — the Eagle inscribed *WLADISLAUS REX*. At the beginning, prior to 1400, they weighed on average 1.51 g with silver proof 0.392—0.420; while later 1.47 g with silver proof 0.383—0.476, and on reverse they were inscribed *WLADISLAI REGIS*. They represented the standard of the Crown demi-grossi. No copper denarii were struck longer which can be regarded as the next sign of defacing the differences between the Crown and Ruthenian coinage.

The Władysław Jagiello's coinage decided about the shape of the 15th century Polish monetary affairs. During the reign of his son Władysław (1434—1444), King of Poland and Hungary, who was killed in the battle of Varna against the Turks, the only Polish issues were the debased Crown denarii, struck in Cracow in considerable number. Their weight was ca 0.35 g and silver proof 0.098—0.217. The denarii alone were struck perhaps in the Interregnum (1444—1447).

Shortage of the Crown demi-grossi about the middle of 15th century, under the Casimir Jagiellon (1447—1492) caused the decision of the parliament at Łeczyca in 1455 to reintroduce this denomination in the Crown mint of Cracow. The new issues started next year. The demi-grossi displayed on obverse the Eagle with a legend *MONETA KAZIMIRI* and on reverse the Crown and inscription *REGIS POLONIE*. Prior to 1479 the average weight of the Crown demi-grossi was 1.46 g and silver

proof 0.342—0.486, later when Piotr Kurozwecki held an office of the Crown Treasurer they were much worse: weight ca 0.89 and silver proof 0.200—0.555. Of course, the Crown denarii were still struck following the former type (weight 0.34 g, silver proof 0.094—0.183).

Regaining of the Gdańsk Pomerania, now called the Royal Prussia, in results of victorious 13-years war with the Teutonic Order (1453—1466) remained the traces in the monetary history of late medieval Poland. Between 1454 and 1457 new mint for striking the shillings for the Prussian province was established. They displayed on one side the shield with the Eagle and inscription KASIMIRUS DG R POLONIE and the Toruń arms with a legend MONETA DUCATUS PRUCIE on the other. They weighed ca 1.65 g and silver proof was 0.530—0.620. In 1457 the King accepted the demands of three large towns from the regained territory — of Gdańsk, Toruń and Elbląg conceding them the minting privileges. The Gdańsk shillings (weight 1.34 g, silver proof 0.210—0.400) displayed a shield with the Eagle and a legend KASIMIRUS DG R POLONIE on obverse and the municipal arms with inscription MONETA CIVIT DAN on reverse. In Toruń municipal mint the one-sided denari (bracteates) showing the Jagiellon double cross (weight ca 0.18 g, silver proof 0.110—0.194) and the shillings showing on one side a shield with the Jagiellon double cross and a legend KASIMIR DG R POLONIE, and the shield with the eagle of the Prussian province (with a crown on the neck and with an arm holding the sword) with inscription MONETA TORUNENSIS on the other (weight 1.27 g, silver proof 0.208—0.385) were produced. The Elbląg mint issued the bracteates showing the municipal arms (weight 0.22 g, silver proof 0.098—0.172) and the shillings displaying on the front side the shield with the Eagle and inscription KASIMIRUS REX and on the back side the municipal arms and inscription MONETA CIVIT ELVI (weight 1.29, silver proof 0.220—0.374). As formerly in Red Ruthenia as presently in Royal Prussia the regional coinage came into being after the given province was incorporated to Poland.

Reigns of two following Kings John Albert (1492—1501) and Alexander (1501—1506) completed the medieval history of the Polish coinage. John Albert continued to strike the Crown denarii since 1499 (weight 0.35 g, silver proof 0.112—0.197) and the Crown demi-grossi. The early issues were debased (weight 0.88 g, silver proof 0.372—0.590) and the Crown Treasurer Piotr Kurozwecki was accused of the mint malversations and in 1499 ousted of the office. Alexander struck the Crown demi-grossi (weight 0.94 g, silver proof 0.400—0.528) and in 1503 very small number of ducats (no specimen survived until nowadays) and in 1506 the Crown denarii, also unnumerous known in the written records as nummos for the mercenaries' pay. It is necessary to add that during the whole 15th century the following reckoning system was held: 1 mark=48 grossi=96 demi-grossi=288 ternarii=864 denarii. These relations were established in 1398 and confirmed in 1447.

Development of the late medieval coinage in Poland was influenced both by the internal conditions and the external factors

The foreign influence upon the monetary relation of the late medieval Poland is reflected in the foreign coins in domestic circulation as evidenced by the contents of the coin-hoards and stray-finds. In the 14th century, as mentioned above, a considerable part of Poland belonged to the circulating zone of the Prague grossi, while the remaining Northern regions were overrun by the bracteates of the Teutonic Order. Domestic issues of the Piast or d'Anjou denarii made insignificant portion of the hoard contents and were rarely registered after all. The share of the Cracow, grossi and Crown quartenses in the late 14th century deposits was very low too. This picture has changed principally during the reign of Władysław Jagiello whose coins, both demi-grossi and denarii quickly overrun the entire monetary market of the Crown. Domination of the domestic currency is clearly visible in the coin-finds, an analysis of 114 15th century coin-hoards as well as numerous stray-finds from 94 localities recorded all over the Crown territory (without the Royal Prussia enjoying some monetary autonomy) revealed that amongst the total number of 44,044+x coins registered in the hoards the foreign pieces made only 19 per cent and amongst 301+x coins from the stray-finds the foreign element made only 15.6 per cent⁶. The foreign currency registered in the coin-hoards represented the following provenance: Bohemia (mainly the Prague grossi buried in the 1st half of 15th century) 48.0 percent

Teutonic Order	42.5 per cent
Hungary (mainly the gold ducats)	7.4 per cent
Germany (mainly the gold guldens)	0.6 per cent
West Pomerania	0.49 per cent
Silesia	0.46 per cent
Lithuania	0.4 per cent
Moldavia	0.1 per cent

⁶ S. Kubiak, *Udział monet zagranicznych w obiegu pieniężnym w Królestwie Polskim w XV wieku*, [in:] *Nummus et historia*, W-wa, 1985, p. 277—287.

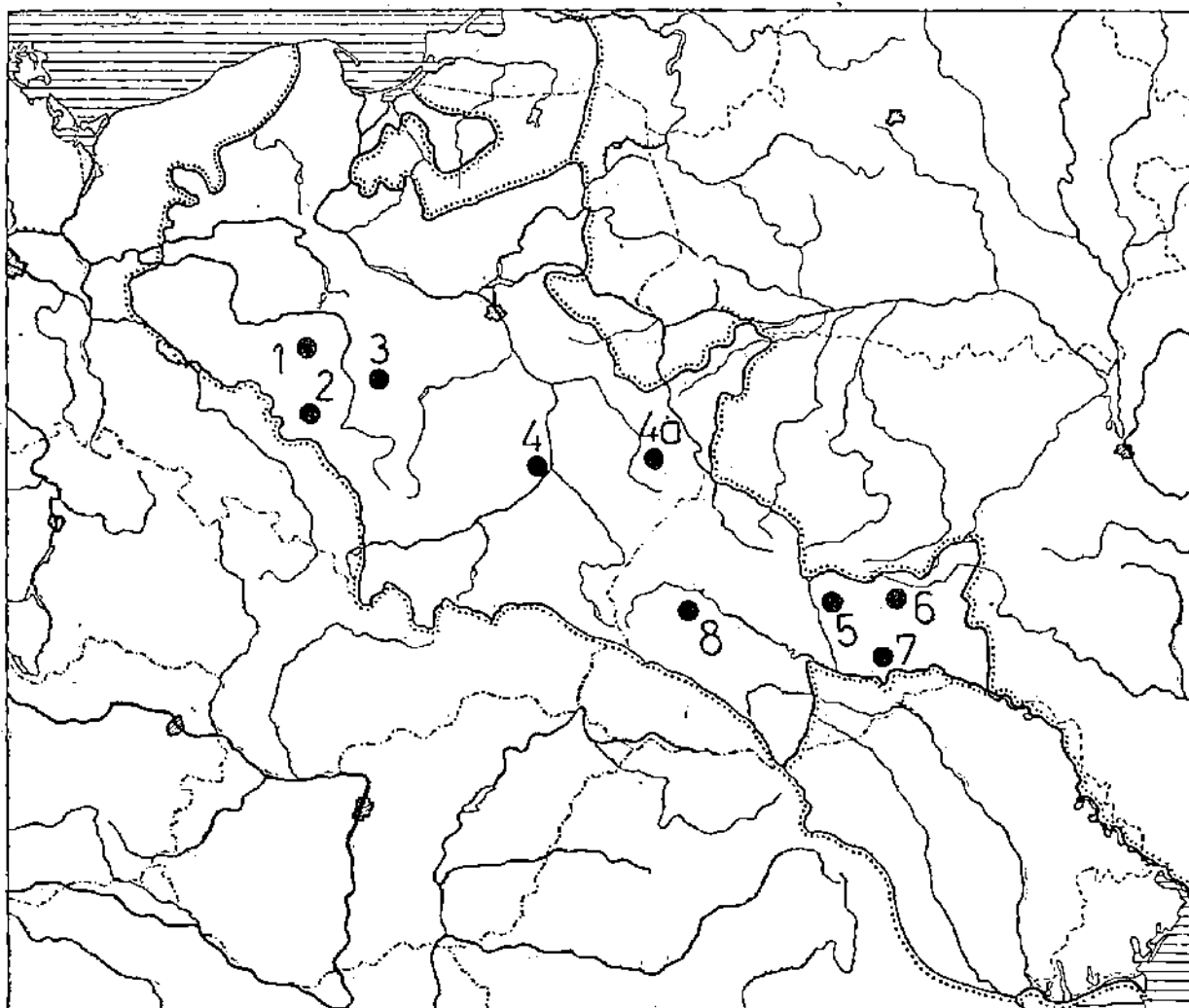


Fig. 2. Map of the finds of the late medieval Moldavian coins on the territory of Poland in the 15th century :
 1. Kościelna Wieś; 2. Plesy; 3. Krobanów; 4. Sandomierz; 4a. Modryniec; 5. Trembowla; 6. Rajkowce;
 7. Unknown Podolian locality; 8. Stryj environs.

Remaining (Livonian Order, Achaia, Croatia)	0.01—0.02 per cent.
The results derived from the stray finds are following :	
Teutonic Order	38.2 per cent
Hungary	25.5 per cent
Silesia	13 per cent
West Pomerania	8.5 per cent
Bohemia	6.4 per cent
Germany	
Moldavia	} each 2.1 per cent
Sweden	
Crimean Tartars	

Almost all foreign coins made the way to Polish territory in the 15th century from the neighbouring countries. Besides three major elements — those of Bohemia, Teutonic Order and Hungary, the minor foreign admixtures unlike the former still expect some study. I believe that the Moldavian contribution will promote the knowledge of the monetary circulation in the early Jagiellon Poland on one side and of the mutual relations between the 15th century Poland and Moldavia in the light of numismatic sources, especially the coin-finds registered on the Crown territory. It is necessary therefore to present them.

Finds of the medieval Moldavian Coins :

1. KOŚCIELNA WIEŚ, WOJ. KALISZ⁹

Hoard of above 3500 small coins, buried in the second half of the 15th century.

It contained first of all the Polish pieces : of Władysław Jagiello / 1386 – 1434 / – the Crown and Lvov demi-grossi, the Crown ternari and denari ; of Władysław Jagiello / 1434 – 1444 / – the Crown denari / about 2600 pieces / ; of Casimir Jagiello / 1447 – 1492 / – the Crown denari and finally of the Casimir Jagiello or John Albert / 1492 – 1501 / – the Crown denari. The foreign coins were the Teutonic Order's solidi, the West Pomeranian denari, the Silesian hellers and then individual small pieces : the Achajan denar, the Croatian denar, the Hungarian obol and the Moldavian denar. Alexander the Good / 1400 – 1432 /, denar like Sturdza¹⁰ plate I no. 5, weight 0,42 g and diameter 13.2 mm.

2. PŁĘSY, WOJ. KALISZ¹¹

Hoard of above 400 silver and 4 golden coins, buried after 1434.

It contained 4 Hungarian gold florens, but first of all the Polish issues : of Casimir the Great / 1333 – 1370 / – the Cracow quarter-se ; of Władysław Jagiello / 1386 – 1434 / – the Crown and Lvov demi-grossi / bulk of the hoard /, the Crown ternari ; of Władysław Jagiello / 1434 – 1444 / – the Crown denar. Amongst the foreign pieces were the Prague grossi, the Meissen grossus and the Moldavian coin.

Peter Musat / 1374 – 1391 / ?, grossus, weight 0,58 g.

3. KROBANÓW, WOJ. SIERADZ¹²

Hoard of above 500 coins, buried probably in thirties of the 15th century.

It contained almost exclusively the Polish coins of Władysław Jagiello / 1386 – 1434 / – the Crown demi-grossi / over 200 pieces /, ternari and denari / about 300 /, and moreover the Moldavian coin. Alexander the Good / 1400 – 1432 /, copper denar close to Sturdza¹⁰ plate I, nos. 4–5.

4. SANDOMIERZ, WOJ. TARNOBRZEG¹⁴

During the archaeological excavations carried out on the Gostonianum yard by the foundations of the former St. Peter's church, 97 coins were found in the graves or in various layers. Among them, in the 3rd layer, the Moldavian coin was found. Alexander the Good / 1400 – 1432 /, copper denar, close to Sturdza, plate I no. 4/a rosette on the left side of the shield and updown letter P above the shield /, weight 0,38 g, diameter 13 mm.

4a. MODRYNIEC, WOJ. ZAMOŚĆ^{14a}

Hoard of 462 silver coins, buried after 1456.

It contained first of all the Władysław Jagiello's Crown (232), Lvov (8) and Ruthenian (1) demi-grossi, then the denari of Casimir Jagiello (1447–1492). There was also one Moldavian coin. Alexander the Good (1400–1432), „demi-grossus“.

5. TREMBOWLA, OBL. TARNOPOŁ¹⁵

Hoard of jewelry and ca 4000 coins, buried probably after 1434. It contained first of all the Polish coins ; of Władysław Jagiello / 1386 – 1434 / – the Crown, Lvov and Ruthenian demi-grossi, the Crown ternari and denari / ca 3500 /. The foreign coins were the Prague grossi, the Silesian and Hungarian denari and finally four Moldavian „small coins“, probably the denari, not determined precisely.

6. RAJKOWCE, OBL. CHMIELNICKI¹⁶

Hoard of one gold and 1003 silver coins, buried in the late 15th century.

It contained mostly the Tartar dirhems, then the Prague grossi and undetermined Polish coins, as well as one undetermined Moldavian coin.

7. PODOLIA – UNKNOWN LOCALITY¹⁷

Hoard of silver coins, buried probably in the first half of 15th century.

In contained the Tartar dirhems, the Prague grossi, undetermined bracteates displaying the crosses and finally the Moldavian coins of Stephen / 1394 – 1400 /, and Wład I / 1394 – 1395 /, not attributed precisely.

Additionally I'll put in this list the early post-medieval coin-hoard containing the Wallachian pieces.

8. STRYJ – ENVIRONS, OBL. LVOV¹⁸

Hoard of above 1200 coins, buried after 1521.

It contained mainly the Polish coins ; of Władysław Jagiello / 1386 – 1434 / – the Crown demi-grossi ; of Władysław Jagiello / 1434 – 1444 / – the Crown denari ; of Casimir Jagiello / 1447 – 1492 / – the Crown demi-grossi ; of John Albert / 1492 – 1501 /

⁹ S. Kubiak, *Skarb z XV w. z Kościelnej Wsi, pow. Kalisz*, WN, XV, 1971, pp. 160–170 ; L. Kokociński, WN, XXVIII, 1984, pp. 113–114.

¹⁰ A. Sturdza, *Uebersicht der Münzen und Medaillen des Fürstenthums Rumänien [Moldau und Walachai]*, Wien 1874 ; O. Biescu, *Indreptări și bulvegiri mărunte cu privire la unele emisiuni monetare feudale ale Țării Române*, SCN, I, 1957, p. 217 un. dates most similar coin to the years 1409–31.

¹¹ A. Mikolajczyk, *Skarb monet jagiellońskich z 1 połowy XV wieku odkryty w Płesach, pow. Wieruszów, Rocznik Muzeów i Ochrony Zabytków Ziemi Polski Środkowej*, vol. 1, 1973, pp. 237–246.

¹² Dr. Stanisławski, *Wykopališko w Krobanowie*, WNA, vol. 111, 1897, num. 4, pp. 365–366.

¹³ Sturdza, *op. cit.*, p. 17, num. 19, 21.

¹⁴ S. Suchodolski, *Sandomierz, m. p. Monety odkryte w czasie badań wykopaliskowych w 1969–1971 r.*, WN, XVI, 1972, pp. 42–43.

^{14a} *Zapiski Numizmatyczne*, Lwów, vol. 3, 1928, 1, pp. 7–9.

¹⁵ J. Stupnicki, *O dwóch wykopaliskach starych monet w Galicji*, Biblioteka Warszawska, vol. 3, 1850, pp. 561–563.

¹⁶ M. F. Kotlar, *Znaleziska monet z XIV–XVII w. na obszarze Ukraińskiej SRR*, Materiały, Wrocław-Warszawa-Kraków-Gdańsk, 1975, p. 36, num. 71.

¹⁷ *Ibidem*, p. 50, num. 154.

¹⁸ Stupnicki, *op. cit.*

— the Crown demi-grossi; of Alexander / 1501—1506 / — the Crown and Lithuanian demi-grossi, the Lithuanian denari; of Sigismund the Old / 1506—1548 / — the Crown and Lithuanian demi-grossi and not determined denari. The foreign pieces were the small Hungarian and Silesian coins as well as three „Wallachian coins”, not determined.

The last hoard, buried during the Sigismund the Old's reign is accompanied by the contemporary written record confirming the presence of the Wallachian (or Moldavian in fact) coins on the Polish late medieval — early modern monetary market. This is a discourse on the monetary affairs by J. L. Decius from 1526 entitled „Josti Ludovici Decii de monete cussione ratio A. D. 1526”, where amongst different domestic and foreign coins circulating in Poland one can read: „Octava est Walachia et varia alia sicut cruciferorum solidi ac varii generis monete Germanice...”¹⁹. Most probably the hoard from environs of Stryj, buried after 1521 illustrates the situation on the monetary market in Poland described in 1526 as far as the Wallachian or Moldavian coins are concerned.

In every Polish find mentioned above the Moldavian element was a minimal admixture: in Krobanów hoard (after 1430) — 0.20 per cent

in Plesy hoard (after 1434)	— 0.23 per cent
in Modryniec hoard (after 1456)	— 0.2 per cent
in Trembowla hoard (after 1434)	— 0.10 per cent
in Kościelna Wieś hoard (2nd half 15th century)	— 0.03 per cent
in Rajkowce hoard (end of 15th century)	— 0.10 per cent
in environs of Stryj hoard (after 1521)	— 0.25 per cent

There is nothing to say about rather numerous 15th century Polish coin-hoards not containing the Moldavian pieces at all.

The Moldavian coins must have been probably unnumerous also in the domestic circulation on the very Moldavian territory. Let us under our considerations two large coin-hoards buried in the period in question in the North-East regions of Moldavia. In the hoard from Kugurești, ra. Florești (1957) 596 silver coins and 16 pieces of jewelry, buried in the second quarter of the 15th century, were registered²⁰. Most numerous group (436 pieces) was made of the Polish issues — the Crown and Ruthenian demi-grossi; moreover the Bohemian grossi (108 pieces) were noted. Small group was made of the Oriental coins: the Genoa-Crimean aspers (5 pieces) and Tartar dirhems of the Golden Horde (46 pieces), than 8 uncertain coins, and finally there was as few as one Moldavian grossus of Alexander the Good. This is a proportion recorded in the distant central Polish hoard from Krobanów. In another Moldavian hoard found in 1890 in the very frontier with Ruthenia, and even on the opposite, left side of Dnestr river in Stroieny, ra. Kamensk, 1 gold and 82 silver coins, buried in the 2nd third of 15th century, was registered²¹. Besides the Hungarian gold floren there were mostly the Bohemian grossi and (Polish?) „demigrossi” (510 pieces altogether); than the Tartar dirhems of the Golden Horde with the Lithuanian countermarks (30 pieces) and finally uncertain two Moldavian coins (grossi?).

Of course, the proportions of the Moldavian coins in the domestic circulation of late 14th and 15th century is still a matter of dispute²², but I'd suggest more careful conclusions drawn from the analysis of the coin-finds.

Distribution of the above finds indicates clearly that the Moldavian coinage spread all over the Crown of the Polish Kingdom despite its share in the hoards was very small. There are distinguished two concentrations of those finds (see the map). One is in Red Ruthenia, especially in Podolia (Trembowla, Rajkowce and unknown Podolian locality). It is a territory next to Moldavia and therefore the Moldavian coins in the Podolian hoards show the starting point of spreading of this currency throughout the Poland. The commercial relations between Moldavia and Red Ruthenia (as a part of Polish Kingdom), and Lwów in particular can explain the presence of the Moldavian coinage in the late medieval Poland. The second concentration is visible in Central Poland and East Great Poland (Kościelna Wieś, Plesy, Krobanów). The Moldavian pieces registered over there must have arrived from the Lvov and Podolian area making a distance several hundreds of kilometers circulating all over the territory of the Crown. The lack of the finds in question in the northern regions is probably resulting from a fact that only in 1466 the victorious 13 years war brought the Gdańsk Pomerania, now called the Royal Prussia, back to Poland.

Certain significance for present considerations is the dating of the coin-hoards burials. The oldest deposits were buried probably as early as in the thirties of 15th century, towards the end o

¹⁹ J. Dmochowski, *Mikolaja Kopernikarozprawy o monacie i inne pisma ekonomiczne oraz J. L. Decjusza traktat o bicciu monety*, Warszawa b. d., p. 121.

²⁰ A. A. Nudelman, *Topografia kladov i nachodok ediničnych monet*, Kišinev, 1976, p. 93, num., 5.

²¹ *Ibidem*, num. 4.

²² L. L. Polewoj, *K topografii kladov i nachodov monet obraščavščijsza na territorii Moldavii v konce XIII—XV v.v.*, *Izvestije Moldavuskogo Filiala ANSSSR*, 1956, num. 4 / 31f.; L. L. Polewoj, *Proischoždenije moldavskoj deneznoj sistemy | XIV v. |, Kratkije Soobščeniija Instituta Archeologii AN SSSR*, num. 105, 1965, pp. 75—78.

Władysław Jagiello's reign and in beginning of his son's rule. They are the Plesy hoard, the Krobanów hoard and Trembowla hoard and additionally the Podolian hoard from unknown locality dated back to the 1st half of 15th century. One can suppose that the Moldavian coins appeared on the Polish monetary market in the first third of 15th century or rather in end of this third, and soon they were hoarded together with other coins. In the 2nd half of 15th century the Kościelna Wieś hoard was buried and in the late 15th century the Rajkowce hoard was buried. We obtained thus two instructions concerning the circumstances of the arrival of the Moldavian coins in Poland. One deals with the geography of the finds themselves exposing Red Ruthenia, the other indicates the time of the 1st third of the 15th century or the reign of Władysław Jagiello. Now it seems useful to compare them with the circumstances resulting from the contemporary commercial relations between Poland and Moldavia which might eventually influence the monetary affairs with the special reference to the Lvov economic centre.

The above question was framed within the evolution of political rapprochement between Poland and Moldavia starting in the late 14th century. In 1387 Peter I accepted the Poland's protection in order to become his policy independent from Hungary on one side and to ensure against from the Ottoman power on the other. The tighten political bonds between two neighbours positively influenced the development of mutual Polish-Moldavian trade contacts. In the latter Lvov played some leading role²³. Two important trade routes run from Lvov to Moldavia: one went via Halicz-Kolomyja-Sniatyn-Cernăuți to Suceava; the other went via Trembowla-Kamieniec Podolski-Chocim to Suceava too. Lvov imported the cattle, horses, sheeps, furs, skins, wax, fishes, silver as well as so called „Tartar commodity” — silk and spices imported from the Black Sea and Balkan regions. Moldavia imported from Lvov the following goods: knives, sickles, scythes, swords, velvet and first of all the cloth. The Lvov merchants were permitted to deliver the cloth as far as to Suceava only, since the Moldavian capital enjoyed from 1408 the privilege for the imported goods, especially for the cloth. Alexander the Good allowed the Lvov merchants to establish and keep the trademen's house in Suceava and this decision was later confirmed twice, in 1456 and in 1460. The Lvov trade with Moldavia flourished in the early 15th century. In 1406 the Lvov merchants acquired from Alexander the Good a privilege of free trade in Moldavia and an immunity from customs. In the same year Lvov extended hospitality to „nuntii de Bessarabia”, the Moldavian envoys who came most probably in connection the commercial treaty. The Moldavian merchants used to visit Lvov frequently since the Polish-Moldavian contacts were very active. Alexander the Good when marrying in 1421, to Ryngalla, a relative of the Polish King Władysław Jagiello legated her towns of Seret and Rothowiec with environs committing himself to pay 600 Hungarian florins in two rates. The wedding contract called for payment of 1 200 ducats to the Polish King in case of missing the obligation. I mention this event in order to emphasize the monetary aspects occurring in the Polish-Moldavian relations in the 1st third of 15th century²⁴.

The 2nd third of 15th century introduced certain impairment of the Polish-Moldavian contacts. Struggles for power in Moldavia from 1432 to 1456 undetermined the political situation in Suceava. The domestic troubles of Moldavia were multiplied by the external threat from the Ottoman Empire. Towards the end of 15th century Moldavia entered the zone of the Turkish political and economic influences. This put an end to the previous good and developing commercial relations between Poland and Moldavia²⁵.

The Moldavian coins recorded in the Polish finds were mostly the denars. Single grossus, worn and hardly readable, most probably struck by Peter Mușat, was found in the Plesy hoard among number of the Crown and Lvov demi-grossi weighing between ca 1 and 2 g. Weight of the Crown ternari oscillated between ca 0.5 to 0.8 g and single Crown denar in this hoard weighed 0.77 g. Therefore the Moldavian grossus weighing 0.58 g must have been taken as a denar or ternar at best. The Moldavian denars were registered in the hoards from Kościelna Wieś and Krobanów and one piece was excavated in Sandomierz. One can suspect that 4 uncertain small coins from the Trembowla hoards were the denars too. All determined Moldavian denars were struck by Alexander the Good and represented one type (Sturdza plate I, nos. 4 and 5). The quality was rather low since they were made of copper, as stated in Krobanów and Sandomierz. In the Krobanów hoard the Moldavian element was found among ca 300 Crown denari. The denar character of the hoard is more emphasized in Kościelna Wieś deposit, containing ca 3 500 pieces of this denomination. The weight of the Moldavian denar was close to that of the Polish denari. They were struck in debased silver — which — according to the tests made on the coins from this hoard — did not exceed 0.13 to 0.15 of the total metal content of the coin. Also the diameter of Moldavian denar was similar to the Polish pieces. Besides the copper denar of Alexander the

²³ L. Charewiczowa, *Hasidzi Średniowiecznego Lwowa*, Lwów, 1925, p. 62.

²⁴ S. Lewicki, *Targi lwowskie od XIV—XIX wieku*, Lwów, 1921, p. 15; Ł. Charewiczowa, *op. cit.*, pp. 67—68, 73—74.

²⁵ Charewiczowa, *op. cit.*, pp. 74, 78.

Good from Sandomierz, there were excavated above 10 other late medieval denars, mostly the Polish coins, but none of that number was determined as copper piece. Finally the uncertain coins of Stephen and Wlad found in unknown Podolian locality should be mentioned but since no proper attribution is known there is no possibility to comment them.

As stated above the mutual influences in the field of mintage and monetary system in the late medieval Europe was visible in various aspects of the mint issues, mint-foots and the coin-circulation. Poland was strongly influenced by the main economic tendency shaping the general pattern of her coinage. On the other side the Poland herself was able to influence the neighbouring countries especially those destitute formerly their own coinages. Incorporation of Red Ruthenia in the mid-14th century to the political and economic system of late Piast monarchy influenced the economic development, set up the local mintage never present over there before. Probably the date of foundation of the mint in Lvov was concurred with the Casimir the Great's monetary reform in the late 60-ties, ca 1367. The silver quartenses of the same weight as the Crown pieces but of better silver content indirectly witness to this possibility. The mutual relations did not omitted Moldavia where the first own coins were struck by hospodar Peter Muşat ca 1377, i.e. 10 years later. In opinion of several scholars like I. Nistor, Ţabrea, Moisil, Nudelman the beginning of the Moldavian coinage was connected with economic impulsions from Red Ruthenia as a part of Poland²⁶. The chronological convergence could not be a result of any accident since it concerned as important element of the market relations as the coinage. The earliest Moldavian coins came into being in the time when in the Lvov mint King Louis d'Anjou and prince Wladyslaw of Opole were striking the Ruthenian silver quartenses (weight 1.030—1.236 g, silver proof 0.875) and copper denarii. First Moldavian coins, inscribed SIGILLUM PETRI VOIVODI, called the „grossi” weighed from 0.85 to 0.98 g. The weight was not adequate to the Ruthenian silver quartenses or even later Crown and Lvov demi-grossi. The Moldavian „Grossi” should contain the fine silver only in order to correspond with the standard of Polish quartenses and demi-grossi. The silver content in the earliest Moldavian coins is not known to me, however such possibility is hard accept since there was a constant debasement of the mint-foot towards the end of 14th century under Stephen I (1394—1399) resulting from a lack of domestic silver deposits. Therefore I cannot show any closer metrological similarity between the Moldavian grossi and Polish quartenses or demi-grossi. If they were introduced as some replicas of the latter the mint-foot was not kept properly. Another minting connection between Lvov and Suceava in late 14th century were the copper denarii struck in both mints. More successful attempts of reception of the Polish monetary standard were done during the reigns of Alexander the Good (1400—1432) and Stephen II (1433—1435) when the so called double grossi were introduced weighing about 1.55 g, i.e. as the Crown demi-grossi struck by Wladyslaw Jagiello in Wschowa and in Cracow in the second phase or as the Lvov demi-grossi from the early 15th century. This metrological trace evidences clearly the Polish influence upon the forming of the Moldavian monetary relations in the 1st third of 15th century. The commercial and political circumstances of this tendency were discussed above.

²⁶ I. Nistor, *Handel und Wandel in der Moldau*, Czerniowitz, 1912, pp. 119—120; C. Moisil, *Contribuţiuni la istoria monetăriei vechi româneşti*, BSNR, 1915; idem, *Istoria monetei în România*, CNA, 1927, num. 9—10, p. 64, I. Ţabrea, *Influenţe externe asupra primelor monete moldoveneşti*, CNA,

1944, num. 131—132, pp. 274—277; see also L. L. Polewoj, *Proischojdenije moldavskojdenicnoj sistemy [XIV v.]*, *Kratkiye Soobščeniija Instituta Archeologii AN SSSR*, No. 105, 1965, pp. 75—78; Nudelman, *op. cit.*