

## MONETARY REFORMS AND THE CIRCULATION OF THE OLD LOCAL COINAGE IN 15<sup>th</sup>-17<sup>th</sup> CENTURY MOLDAVIA: SOME REMARKS ABOUT A COIN OF PETER I (cca 1375-1391) FOUND IN A MID 17<sup>th</sup> CENTURY HOARD FROM IASSY

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The unusual presence of a late 14<sup>th</sup> century Moldavian groat, struck during the reign of the prince Peter I (cca 1375-1391) in an exceptionally large hoard, in fact, a complex of hoards, concealed in six ceramic pots, found in 2002 in Iassy, could offer a good opportunity to discuss how effective were the consequences of the monetary reforms undertaken in this country during the late 14<sup>th</sup> and in 15<sup>th</sup> century upon the further evolution of the local monetary market for almost a century.

Though the complex of hoards uncovered in Iassy in 2002 was concealed during the late 1640's, it contains also some very early issues, struck at the end of the 14<sup>th</sup> or during the early 15<sup>th</sup> century, among others, a Moldavian coin of Peter I. This find contains also some few Polish half groats struck during the reign of Władysław II Jagello (1386-1434), as well as the coins of the Grand Masters of the Teutonic Order Michael Kuchmeister von Sternberg (1413-1422), Heinrich Reuss von Plauen (1450-1467), Heinrich Reffle von Richtenberg (1470-1477). Together with the deniers of the Hungarian King Mathias Corvinus (1458-1490), they are among the oldest issues in this huge monetary accumulation, which was gathered-up during the 16<sup>th</sup> century and the first half of the 17<sup>th</sup> century<sup>1</sup>.

The coin of Peter I belong to the group bearing the representation of two lilies on the heraldic shield depicted on its reverse (fig. no 1).

Obv. \*SIMP[... ]WOIWOI

Auroch's head, between ♣ and C, having \* between the horns.

Rv. [... ]MOLDAVIEN[... ]

Parted shield, in first barry of six, in second two lilies.

AR 0.74 g 19 mm. Pierced with a triangular edged sharp tool (knife?)<sup>2</sup>.

All the recent studies on the Moldavian coinage during the 14<sup>th</sup> century, fully confirmed the correctness of N. Docan's suppositions made a century ago<sup>3</sup>, that the two lilies series of Peter's I groats belongs to the last monetary issues of this Prince. Quite likely, the two lilies variant groats of Peter I could be found only in late hoards, concealed after 1385/6-1391 or even later, during the last decade of 14<sup>th</sup> century or the first years of the 15<sup>th</sup> century<sup>4</sup>. Considering the chronological sequences suggested by the hoards

<sup>1</sup> E. Oberländer-Târnoveanu, *Moldavian coins*, in Virgil Mihailescu-Bîrliba (ed.), *The great medieval coin hoard of Iași*, (Historical significance of the great medieval coin hoard of Iași – 2002), Institutul European Press, Jassy, 2006, (translated by Adrian Poruciuc and Nobert Poruciuc), p. 409-412. About the general contain of the hoard-complex found in Iassy see: L. Munteanu, V. Mihailescu-Bîrliba and E. Oberländer-Târnoveanu, *The catalogue of coin hoard*, p. 57-368. The Moldavian coin of Peter I is catalogued at p. 57, no 1. The hoard of Iassy 2002 contains two half groats of Władysław II Jagello, described at p. 58, nos 2-3. The first one, corresponding to the type I of Stanisława Kubiak, *Monety pierwszych Jagellonów (1386-1444)*, Wrocław-Warsaw-Cracovia, 1970, p. 37, was struck in the Cracovian mint in 1394-1395, under the mint-master Petir Bork. The second one belongs to the type XI, Cracovia, a. 1431-1434, Stanisława Kubiak, *op. cit.*, p. 62. The coins of Teutonic Order are described at p. 209, nos 7536-7540 and the Hungarian coins of Matthias Corvinus at p. 209-210, nos 7555-7568.

<sup>2</sup> O. Luchian, *Moldova*, in Gh. Buzdugan, O. Luchian and C. C. Opreșcu, *Monede și bancnote românești*, Bucharest, 1977, p. 52, no 192 (furthermore abbreviated MBR), general type (because in the old Romanian numismatic literature there is not always a clear distinction between the privy-marks \* and ★, hidden in the monetary inscriptions, used to distinguish among the successive issues with two lilies variant on the shield).

<sup>3</sup> N. Docan, *Notiți despre monedele lui Petru Mușat*, in AAR-MSI, 30, 1907-1908, p. 149-151.

<sup>4</sup> 1. Rachelu (comm. of Luncavița, Tulcea County), cf. Constanța Știrbu and Paraschiva Stancu, *Monede din tezaurul de la Rachelu aflate în colecția Muzeului de Istorie al R. S. România și importanța lor istorică*, in BSNR, 67-69, 1973-1973, 121-123, p. 143-165; O. Iliescu, *Moldova Din tezaurul descoperit la Rachelu*, in *Creșterea Colecțiilor Caiet selectiv de informare*, 43-44, ianuarie-iunie, 1973, p. 15-18, nos 41-50; Katiușa Pârvan and B. Constantinescu, *Un lot din tezaurul de la Rachelu (com. Luncavița, jud. Tulcea)*, in *Pontica*, 33-34, 2000-2001, p. 625-657; Katiușa Pârvan, *Încă un lot de monede moldovenești din tezaurul de la Rachelu (com. Luncavița, jud. Tulcea)*, in *Peuce*, S. N., 1 (14), 2003, p. 431-446. The hoard of Rachelu was concealed cca 1388-1397, during one of the early Ottoman invasions in Dobruđa or during the Wallachian civil war between Mircea the Elder and Vlad I (1396-1397).

2. "Oradea hoard – before 1935", cf. O. Luchian, *Un tezaur de monede moldovenești descoperit în Bihor*, in SCN, 4, 1968, p. 413-422 (actually, the hoard was found in an unknown finding place in Bihor County, in the area of Oradea). The "Oradea hoard" is a typical example of the so-called "traveller's hoards", consisting only in foreign currency, concealed in a totally different monetary

assembling<sup>5</sup>, I suppose that this series were issued quite likely during the years 1386-1391<sup>6</sup>. The same reverse design with the two lilies in shield will be continued in use later on during the rules of Stephen I<sup>7</sup> and Alexander I (for the later one, only on his early issues)<sup>8</sup>.

The XRF analyses undertaken during the last years in the National Institute for Atomic Physics and Nuclear Engineering "Horia Hulubei" in Bucharest-Măgurele show that these groats were struck from an alloy with a lower content of silver than the early issues of Peter I<sup>9</sup>.

Surprisingly for a coin issued some 250 years before the concealment of the hoard to which belonged, the groat of Peter I found in the Iassy find is rather well preserved and shows not too much traces of wear due to circulation. However, the coin is pierced. The hole has not a normal circular shape but a triangular one. I found this very peculiar trace of cancellation on many forged coins found during the archaeological excavation in Baia and in several other places<sup>10</sup>. Quite likely, it was the consequence of a deliberate action of one of its last owners. Peter's I groat from Iassy 2002 hoard bear the traces of a stroke

milieu, without any local contamination. Quite likely it was concealed in 1394-1395, as a consequence of the Hungarian-Moldavian war during the winter of this year. One could suppose that it represented a part of the wealth carried by a Moldavian merchant or traveller taken by surprise by the events during his journey through the Hungarian Kingdom, far away from the border of his country.

3. "Berlin hoard before 1902", cf. Constanța Știrbu, *Valori românești păstrate în muzeele din străinătate – Un tezaur de la Petru Mușat*, in CN, 3, 1980, p. 77-86. The hoard was concealed after 1385, but before 1394.

4. Bucharest – Giulești hoard 1929, cf. G. Severeanu, *Monetele lui Petru Mușat găsite într-un tezaur de monete de la Mircea cel Bătrân*, in Bucureștii. Revista muzeului municipiului București, 3, 1937, 2, p. 67-73. The hoard was concealed cca 1395 or soon after, during one of the Ottoman campaigns against Wallachia.

5. Corlăteni (Corlăteni village, Boloșani County), cf. Al. Andronic and N. Grigoraș, *Tezaurul de monede moldovenești descoperite la Corlăteni* [sic !!!], in Studii și Cercetări Științifice. Academia Republicii Populare Române. Filiala Iași, 8, 1957, 1, p. 222-223. According to O. Iliescu, *Însemnări privitoare la descoperiri monetare (II)*, in SCN, 2, 1958, p. 458, no 29, from 2520 coins of the hoard (supposed to have more than 6,300 specimens), examined by himself, 2,300 belonged to Peter I and 220 specimens to Stephen I. On this find see also: Katiușa Pârvan, *Aspecte ale monetăriei Moldovei la sfârșitul secolului al XIV-lea*, in *130 de ani de la crearea sistemului monetar românesc modern*, ed. by M. Isărescu, Bucharest, 1997, p. 230. Traian Bița from Pașcani, a distinguish and well informed coin collector, kindly informed me on 1<sup>st</sup> February 2007, that, in fact the so-called „Moldavia – unknown place before 1970 hoard”, kept in the collection of „Moldavia Museum Complex” in Iassy and published by V. Butnariu in Ana Boldureanu, V. M. Butnariu, C. Chiriac, Elena Gherman, C. Hribean, Adriana Ioniuc, Adriana Moglan, Iulia Moldovan, E. Nicolae, Șeiva Sanic and Carmen Ungureanu, *Monnaies et parrures du Musée d'Histoire de Iași* [Corpus nummorum Moldaviae II], ed. by V. M. Butnariu, Iassy, 2001, p. 52-56 no 9, represents, actually, only a parcel of the Corlăteni 1957 hoard. The hoard was buried during the dynastic struggles between Stephen's I successors: Alexander I and Juga, in 1399-1400.

6. Mărmureni (Oniceni village, Neamț County), Katiușa Pârvan, *op.cit.*, p. 231 and Eadem and B. Constantinescu, *Tezaurul de groși moldovenești din secolul al XIV-lea descoperit la Mărmureni, sat Oniceni, jud. Neamț*, in CN, 9-11, 2005, p. 285-359. The hoard was concealed during the dynastic struggles between Stephen I successors: Alexander I and Juga, in 1399-1400.

<sup>5</sup> Peter's I groats belonging to the variants with two lilies are lacking from all the best dated early hoards containing such issues, for example, Buruienesti hoard (comm. of Doljști, Neamț County), see: Elena Petrișor, *Date preliminare asupra tezaurului medieval de la Buruienesti, comuna Doljști, județul Neamț*, in *Memoria Antiquitatis*, 12-14, 1980-1982, (1986), p. 171-191 and Scobinți (comm. of Scobinți, Iassy County), see: T. Bița, *Monede medievale moldovenești din secolul al XIV-lea descoperite la Scobinți (jud. Iași)*, in BSNR, 70-74, 1976-1980, 120-124, p. 305-315 and V. Butnariu, *op. cit.*, p. 51 no 8. The Buruienesti and Scobinți hoards were concealed cca 1383-1385, or soon after. For that reason, I consider that, in fact, the production of Peter's I groats with two lilies in the shield should be dated only during the years 1385/6-1391.

<sup>6</sup> According to Katiușa Pârvan, in *130 de ani de la crearea sistemului monetar românesc modern*, p. 212-220 and 229-230, this type was struck by Peter I during an hypothetical associated reign with Stephen I, which was dated by the author cca 1387 - before November 18<sup>th</sup> 1393. For a "Classical" point of view on the evolution of the Moldavian monetary system during the reign of Peter I, though not always very accurate in all its details, such as the metrological or the chronological matters rose by the issues see: O. Iliescu, *Legendele celor mai vechii monede moldovenești*, in Anuarul Institutului de Istorie și Arheologie „A. D. Xenopol”, 3, 1966, p. 201-212; Idem, *Moneda în România 491-1860*, Bucharest, 1970, p. 25-26; Idem, *Monetele în circulație în secolul al XIV-lea. Apariția primelor monede proprii ale statelor române și Ultimele emisiuni monetare proprii în Țara Românească. Modificările aduse sistemului monetar în Moldova*, in C. C. Chirițescu, *Sistemul bănesc al leului și precursorii lui*, 2<sup>nd</sup> edition, vol. I, Bucharest, 1997, p. 63-93 and P. P. Byrnja and N. D. Russev, *Monety srednevekovoj Moldavii (Istorisko-numizmatičeskie očerki)*, in Stratum Plus – Vaš arheološki žurnal, 6, 1999, p. 182-184.

<sup>7</sup> MBR, p. 57-58, nos 351-351a-b.

<sup>8</sup> MBR, p. 59-60, nos 356-367 and on his first reformed issues, p. 59, nos 352-355 and p. 60, nos 369-370.

<sup>9</sup> The analyses so far published of 136 coins of Peter I, belonging to the "two lilies" series, prove that they had average finesses of about 327.7‰ = 5 1/5 lots, according to the Central European metrological system, or 7 9/10 carats, according to the Mediterranean one. In fact, the silver content of the analysed specimens ranges from 678‰ (about 10 4/5 lots or 16 1/3 carats) to 140‰ (about 2 1/4 lots or 3 2/5 carats). For the analyses, see: Katiușa Pârvan in *130 de ani de la crearea sistemului monetar românesc modern*, p. 230 and by Eadem and B. Constantinescu, in CN, 9-11, 2003-2005, p. 265-270.

<sup>10</sup> In the preliminary publication of the coin, I wrongly asserted that it was pierced, as a result of the chemical corrosion produced in the soil, see: E. Oberländer-Târnoaveanu, *op. cit.*, p. 409. However, later, when I had the opportunity to study the coins found during the archaeological researches made at Baia (comm. of Baia, Suceava County) by dr. V. Neamțu, dr. Eugenia Neamțu and dr. Stela Cheptea, I remarked the presence of the same triangular shaped „piercing” on some of the forged coins uncovered there. The shape of the „holes” on these obviously forged coins was so sharp and neat that led me to the conclusion that they were cancelled as legal monetary tender and made improper to any further use as currency. Such traces of “knife edge” strokes are mentioned also on other specimens from Iassy 2002 hoard, see: L. Munteanu, V. Mihăilescu-Birliba and E. Oberländer-Târnoaveanu, *op. cit.*, passim.

caused by a sharp edged implement (knife's edge?), intended to avoid its further use as regular monetary mean.

The presence of a Moldavian coin issued at the end of the 14<sup>th</sup> century in a hoard concealed towards the middle of the 17<sup>th</sup>, represent an absolutely unique situation in the troubled monetary landscape of this country. Excepting the Rădăuți hoard, so far there are no mentions about late 14<sup>th</sup> century Moldavian groats or pre-reformed issues of Alexander I found in any of the so far recorded coin hoards dated after the first decade of the 15<sup>th</sup> century, such as:

1. Mărmureni (comm. of Oniceni, Neamț County) – Groats of Peter I, Stephen I and **one** pre-reformed<sup>11</sup> groat of Alexander I<sup>12</sup>.
2. Baia 1968 (Baia village, Suceava County) – **Only** pre-reformed groats of Alexander I<sup>13</sup>.
3. Măcin 1948 (Tulcea County) – **Only** pre-reformed groats of Alexander I<sup>14</sup>.
4. Iassy 1958 – **Only** reformed<sup>15</sup> issues of Alexander I (so-called anonymous “1/2 groats”)<sup>16</sup>.
5. Iassy 1979 - St Sabbas Church – **Only** reformed issues of Alexander I (so-called anonymous “1/2 groats”)<sup>17</sup>.
6. Cuhurești 1957 (Florești distr., R. of Moldavia) – **Only one** reformed issue of Alexander I (so-called “double groats”), and foreign issues: Red Russia – kwartniks, Poland – 1/2 groats, Lithuania – countermarked on Golden Horde dirham, Bohemia – groats, Caffa – aspers, Golden Horde - dirhams<sup>18</sup>.
7. Suceava 1999 – The Princely Court – **Only** reformed issues of Alexander I (so-called anonymous “1/2 groats”) and Hungary, Sigismund I, quartings<sup>19</sup>.
8. Suceava 1960 – **Only** reformed issues of Alexander I and Elias I (so-called “double groats”)<sup>20</sup>.
9. Suceava 1969 – St Demetrius Church – **Only** reformed issues of Alexander I and Elias I (so-called “double groats” and anonymous “1/2 groats”)<sup>21</sup>.
10. Rădăuți before 1935 (Suceava County) – **One** pre-reformed issue of Alexander I and **several** reformed issues of Alexander I and Elias (so-called anonymous “1/2 groats”), as well as a Late Roman AE 4 (late 4<sup>th</sup> century or first half of the 5<sup>th</sup> century A. D.)<sup>22</sup>.
11. Cetatea Albă 1974 (Bjalgorod-Dnestrovski, Odessa Region, Ukraine) – **Only** reformed issues of Alexander I (so-called reformed anonymous “1/2 groats”) and a “double groat” of Stephen II<sup>23</sup>.

<sup>11</sup> In my opinion, the “pre-reformed” issues the groats of Alexander I are the groats types described in *MBR* under nos 356-367, as well as their corresponding “1/2 groats”, published by K. Pârvan, *Monede moldovenești descoperite la Suceava (I)*, in CN, 8, 2002, p. 203, no 25.

<sup>12</sup> Katiușa Pârvan and B. Constantinescu, in CN, 9-11, 2005, p. 285-359.

<sup>13</sup> The hoard was briefly mentioned by Eugenia Neamțu, V. Neamțu and Stela Cheptea in, *Orașul medieval Baia în secolele XIV-XVII. Cercetările arheologice din anii 1967-1976*, Iassy, 1980, p. 142.

<sup>14</sup> Katiușa Pârvan, *Monedele moldovenești descoperite în Dobrogea, in Istro-Ponticca Muzeul tulcean la a 50-a aniversare 1950-2000. Omagiu lui Gavrilă Simion la 45 de ani de activitate 1955-2000*, ed. by Mihaela Iacob, E. Oberländer-Târnoaveanu and Fl. Topoleanu, Tulcea, 2000, p. 563-572.

<sup>15</sup> In my opinion the “reformed” issues are all the other coins of Alexander I, not mentioned at foot-note no 11, it means, the types described in *MBR* nos 352-356, 370-470a-i. However, I should except from these series the specimens described under nos 414-417, which, in fact, belong to Alexander II (1449-1455), as proved by T. Bița, *Opinii privind emisiunile monetare ale Moldovei din timpul lui Alexandru cel Bun (Alexandru al II-lea, 1449, 1452-1454, 1455)*, in BSNR, 77-79, 1983-1985, 131-134, p. 291-296.

<sup>16</sup> Eugenia Neamțu, *Tezaurul de monede anepigrafe de aramă de la Alexandru cel Bun descoperit la Iași*, in Arheologia Moldovei, 2-3, 1964, p. 495-503.

<sup>17</sup> V. M. Butnariu, *op. cit.*, p. 57, no 10.

<sup>18</sup> V. I. Markevič, L. L. Polevoj and Š. R. Fin, *Kugureštiki monetno-veščevoj klad XV v.*, in Trudy Gosudarsvennyj Istoriko-Kraevedčeskij Muzej Moldavskoj SSR, 1, 1960, p. 81-102.

<sup>19</sup> Monica Gogu, *Un tezaur de monedă măruntă descoperit la Curtea Domnească de la Suceava*, in CN, 8, 2002, p. 213-221 and V. Butnariu, *Note numismatice (VI)*, in Anuarul Institutului de Istorie „A. D. Xenopol”, 39-40, 2002-2003, p. 702-707.

<sup>20</sup> O. Ilicescu and Gr. Foiț, *Un tezaur de monede moldovenești din prima jumătate a secolului al XV-lea, descoperit la Suceava*, in Arheologia Moldovei, 5, 1967, p. 145-165.

<sup>21</sup> Gr. Foiț and Al. Artimon, *Noi descoperiri monetare la Suceava*, in Muzeul Suceava. Studii și Materiale, Istorie, 3, 1973, p. 297-309.

<sup>22</sup> Katiușa Pârvan, *Monedele moldovenești păstrate la Muzeul Național de Istorie a României*, in Suceava. Anuarul Muzeului Național de Istorie al Bucovinei, 26-28, 1999-2001, p. 357-361. The pre-reformed groat (p. 371, no 1, type *MBR*, no 360) from the hoard weights 0.76 g and contains: Ag = 35 %; Cu = 88.5 %; Pb = 12 %; Sb = 2 %; Fe = 65 %.

<sup>23</sup> Briefly described by A. A. Nudel'man, *Nahodki monet epohi feodalizma iz razkopok i sborov 1974-1976 gg. v Dnestrovskogo-Prutskom regione*, in *Arheologičeskie issledovanija v Moldavii 1974-1976 gg.*, Kișinev, 1981, p. 184. Nudel'man considered that this hoard contains also a so-called “double groat” struck by Alexander I. The find is fully published recently by Lilija Dergačeva, *Tezaurul lui Alexandru cel Bun în Belgorod-Dnestrovsk*, in Tyragetia Istorie Muzeologie, N. S., 1, (16), 2007, 2, p. 87-90. According to Dergačeva the youngest coin of the Cetatea Albă 1974 hoard is a “double groat” of Stephen II (*MBR* 69) struck during his first sole reign, 1433-1435.

12. Moldavia unknown place before 1935 – **Only** reformed issues of Alexander I, Elias I and Stephen II (so-called “double groats”)<sup>24</sup>.
13. Roman before 1969 (Neamț County) – Elias I (so-called “double groats”)<sup>25</sup>.
14. Roman 1975 – **Only** reformed issues of Alexander I (so-called anonymous reformed “1/2 groats”), Elias I, Stephen II, Peter II, Roman II and Peter III Aaron (so-called “1/2 groats”), Wallachia (ban) and Ottoman Empire (clipped asper)<sup>26</sup>.
15. Leorda 1900 (Leorda village, Botoșani County) – Alexander II (so-called “double groats”)<sup>27</sup>.
16. Suceava 1954 – **Only** reformed issues of Alexander I and of his successors until Peter III Aaron (so-called anonymous “1/2 groats”)<sup>28</sup>.
17. Cetatea Albă – Tokmanov collection – **Only** reformed issues of Alexander I and his successors and municipal issues of Asprokastron<sup>29</sup>.
18. Orheiul Vechi 1983 (Orhei County, Republic of Moldova) – Stephen III (groats, 1<sup>st</sup> issue)<sup>30</sup>.
19. Sulița Nouă 1897 (currently Nova Selica, Cernăuți region, Ukraine) – Stephen III (groats, 2<sup>nd</sup> issue)<sup>31</sup>.

Nevertheless, Moldavian coins from the late 14<sup>th</sup> or early 15<sup>th</sup> century are also missing also from the composition of all the hoards concealed during the 16<sup>th</sup> century or at the beginning of 17<sup>th</sup> century, even if some of them, such as that found at Săseni (Călărași County, Republic of Moldova) contains rather consistent parcels of ancient Golden Horde coins, issued during 1313-1369<sup>32</sup>.

I consider that the virtual absence of any early Moldavian issues in the post cca 1410 hoards was the effect of two dramatic events happened in the political and monetary history of the country during the first decade of the 15<sup>th</sup> century<sup>33</sup>.

The first of them was the severe reduction of the finesses of groats struck during the first years of Alexander I reign (1400-1432). Although the reduction of the silver content of the Moldavian groats started before 1383, its devaluation grows faster after the generalisation of Peter I issues with two lilies on the reverse. These coins have an average finesses of 327.7‰ = 5 1/4 lots or 7 9/10 carats, though some specimen shown even lower figures, such as 200‰ to 140‰ (3 1/5 lots or 4 4/5 carats to 2 1/4 lots or 3 1/3 carats). The analyses so far made on the coins of Stephen I suggest that most of the issues of this prince were struck according to a standard of 4 to 3 1/2 lots or 6 carats to 5 1/4 carats (250‰ to 218.75‰). However, a quite large number of the investigated specimens have even a lower silver contain than 200‰<sup>34</sup>.

In spite of the scarcity of Alexander I early coins available for analyses, the investigations made so far allow me to envisage a model of the evolution of the finesses standards used during the early years of his rule. The first pre-reformed issues were struck according to a finesses standard of 3 1/2 lots (about 200‰); rather similar to that used during the last years of Stephen I reign. It seems that soon after, the silver contain dropped sharply, and the average finesse of the 32 analyzed specimens is only of about 1 lot (60.62 ‰), but the median finesse of 104 ‰ could indicate a more graduated evolution, with an intermediary standard of

<sup>24</sup> G. Severeanu, *Monedele lui Iliș*, in Bucureștii, 1, 1935, p. 54-68.

<sup>25</sup> Domnița Hordilă, *Opt monede de la Iliș*, in Carpica, 1, 1969, p. 325-329.

<sup>26</sup> Eadem, *Tezaurul de monede medievale descoperit în 1975 la Roman*, in *Memoria Antiquitatis*, 19, 1994, p. 401-422.

<sup>27</sup> O. Iliescu, *Un vechi tezaur de monede moldovenești rămas necunoscut*, in *Studii și Cercetări de Bibliologie*, 1, 1955, p. 304-312.

<sup>28</sup> The hoard was briefly mentioned by B. Mîtreă, Gh. Diaconu, M. Matei, Alexandrina Alexandrescu, N. Constantinescu, T. Martinovici, C. Nicolescu and Șt. Olteanu, *Șantierul arheologic Suceava-Cetatea Neamțului*, in *SCIV*, 6, 1955, 3-4, p. 759-760 and O. Iliescu and Gr. Foiț, *op. cit.*, p. 165, no 19.

<sup>29</sup> The hoard was briefly mentioned by N. Rusev and A. Gorodenco, *Tezaurul de monede moldovenești descoperit la Cetatea Albă, în Simpozion de numismatică organizat în memoria martirilor căzuți la Valea Albă, la împlinirea a 525 de ani (1476-2001) Programul și rezumatele comunicărilor (Chișinău, 13-15 mai 2001)*, Chișinău, 2001, p. 15.

<sup>30</sup> The hoard was briefly mentioned by P. P. Byrnja and T. F. Rjaboj, *Arheologičeski raboty v Starom Orheem*, in *Arheologičeskie issledovanija v Moldavii 1983 g.*, Chișinău, 1988, p. 122.

<sup>31</sup> O. Luchian, *Monedele de la Ștefan cel Mare găsite la Sulița Nouă (Basarabia)*, in *CNA*, 16, 1942, 123-124, p. 66-67; Katiușa Pârvan, *Contribuții la cunoașterea monedelor lui Ștefan cel Mare (Tezaurul de la Sulița Nouă)*, in *Revista Muzeelor*, 40, 2004, 3, p. 53-62 and E. Oberländer-Târnoveanu, *Emisiunile monetare bătute pe teritoriul Moldovei în vremea lui Ștefan cel Mare (1457-1504) – O analiză critică*, in *CN*, 9-11, 2003-2005, p. 453-454.

<sup>32</sup> A. A. Nudel'man, *Topografija kladov i nahodok ediničnyh monet*, Kișinev, 1976, p. 96-97, no 8 and E. Nicolae, *Monedele din epoca Hoardei de Aur din tezaurul de la Săseni, raionul Călărași (Republica Moldova)*, in *Al XXXI-lea Simpozion Național de numismatică, Caransebeș, 3-5 iunie 2004, Rezumate*, Caransebeș, 2004, p. 3.

<sup>33</sup> As I already mentioned, the only post cca 1410 find containing pre-reformed issues of Alexander I so far known is the hoard of Rădăuți/1935.

<sup>34</sup> Katiușa Pârvan and B. Constantinescu, *op. cit.*, p. 235 and 268-270.

cca 2 lots. However, rather numerous analyzed specimens have even a lower silver content than the previous figure, such as about 20%<sup>35</sup>, which undeniably represent an unprecedented level of debasement, in fact, never reached by any Moldavian "groat" size coinage during the 14<sup>th</sup>-15<sup>th</sup> century.

Due to the extreme scarcity of the sources regarding the history of the Moldavian principality during the 1390's and the early 1400's one can only presume that the reduction of the silver content of the local coinage was not a direct and proportional reaction to the similar devaluation happened in Red Russia and in Poland during the first two decades of Wladyslaw Jagello reign. Although, the Red Russian coinage was substantially debased during the period 1387-1408<sup>36</sup>, it is obvious that it never reached such dramatic minimal levels as it happened in contemporary Moldavia.

The hoards making-up, as well as their sizes, suggest that during the late 1380's, at the end of the reign of Peter I, the Moldavian mints increased their activity, though this increase of the amount of issues was followed by the decline of the silver content of the coinage. The amount of the coinage struck those times was so large, that most of the hoards concealed during the reign of Stephen I, Roman I and at the beginnings of Alexander I reign consisted in old, pre 1391, issues.

It seems that the main reason of the very busy minting activities in Moldavia during the late 14<sup>th</sup> century was not the fulfilment of the needs of a thriving economy, as it was supposed by the previous scholars dealing with this topic<sup>37</sup>, but to supply with cash the military and political activities. A large quantity of ready cash required either by the more and more frequent domestic dynastic disputes over the throne. Quite likely, even more costly should have been the involvements of the Moldavian princes in military actions abroad, such as:

- the aborted Moldavian interventions to recover Pocutia.
- the support of the rebellion of Podolian duke Theodore Koriatovič against the Lithuanian Great Duke Švitrigaila and the Polish King Wladyslaw II Jagello.
- the participation to anti-Mongol campaign of Wytold.
- the Hungarian-Moldavian war during the winter of 1394-1395, which led to the invasion in the country by Sigismund I of Luxembourg.

The troubled internal situation and the widespread insecurity raging within Moldavia's borders were clearly reflected by the rather large number of hoards concealed during the period 1386-1400 mentioned above<sup>38</sup>, unlike the previous period which provided extremely few hoards.

<sup>35</sup> For the metrology of the coins described in *MBR* nos 356-367, see the analyses published by Katiușa Pârvan, in *Istro-Pontica*, p. 563-572 and Eadem and B. Constantinescu, in *CN*, 9-11, 2003-2005, p. 344. The only one coin issued by Alexander I, found in the hoard Mărmureni has a fineness of 190 ‰. One could presume that the concealment of this hoard happened cca 1399-1400. Alexander's I coins from the Măcin hoard have an average silver content of only 53.25 ‰.

<sup>36</sup> On the metrology of the coinage of Wladyslaw II Jagello see: Stanisława Kubiak, *op. cit.*, p. 38-119, *passim*. The analyses made on the Russian groats struck by Wladyslaw II Jagello during the years 1388-1394 revealed an average content of 746.25 ‰ silver (about 12 lots, or about 18 carats), *Ibidem*, p. 72 (they range from 788 ‰, 737 ‰ [2 sp.] to 723 ‰). The average silver content of the Lwovian half-groats issued during 1401-1414 (or 1408) was reduced to 413 ‰ (about 6 2/3 lots or about 9 9/10 carats), *Ibidem*, p. 75 (actually, they range from 476 ‰, 425 ‰, 423 ‰, 398 ‰, 394 ‰, 392 ‰ to 383 ‰). According to A. Kryžanovskij, *Monety Červoimoi Rusi XIV-XV vv. Itogi issledovannij*, in *Dvenadcataja vsrossijskaja numizmatičeskaja konferencija Moskva 19-24 aprelja 2004*, Moscow, 2004, p. 112-3 the production of the Russian groats struck in the name of Wladyslaw II started in 1387 and lasted until 1399. The next year, in 1400 the mint of Lwov (Lemberg, Leopoldis) started the production of the municipal half-groats of Lemberg, but struck accordingly the general metrological standards of the Crown half groats. The author considers that the autonomous mint of Lwov was closed in 1408. I mentioned here only the data regarding the fineness standards used for the Red Russian coinage, because these issues had an important influence over the evolution of the Moldavian coinage during the late 14<sup>th</sup> and early 15<sup>th</sup> century. During 1386-1400, the fineness standards of the Polish Crown issues of Wladyslaw II were different, in fact considerably lower, than those used in Lwov.

<sup>37</sup> O. Iliescu, *Monedele în circulație în perioada de trecere la feudalism și în feudalism*, in C. C. Kirîțescu, *Sistemul bănesc al leului și precursorii lui*, vol. I, Bucharest, 1964, p. ; Idem, *Moneda în România 491-1864*, Bucharest, 1970, p. 25-26; Idem, *Aspecte ale economiei monetare în Moldova sub domnia lui Alexandru cel Bun*, in *Revista Istorică*, S. N., 11, 2000, 1-2, p. 64.

<sup>38</sup> To the hoards already mentioned in the foot-notes nos 4-5 I have to add those found at Mamornița 1875 (Region of Czernowitz, Ukraine), see: D. A. Sturdza, *Memoriu asupra numismaticii românești*, in *Analele Societății Academice Române, Secțiunea II, Memorii și Notițe*, 10, 1878, p. 158 and Schineni, about 1862-1865, N. Docan, *op. cit.*, p. 152; "Unknown finding place in the area of Cernăuți I, before 1877"; "Unknown finding place in the area of Cernăuți II, before 1877", Bucovine (Czernowicz Region, Ukraine), see: Constanța Știrbu, *op. cit.*, p. 85, foot-note no 7 and "Virvați", near Cotnari 1883 (Iassy County), see: *Ibidem*, foot-note no 8. Based on D. A. Sturdza's assertion that Mamornița hoard contained also three coins of Wladyslaw II Jagello, one could suppose that, in fact, this find consisted not only issues of Peter I, as it was so far presumed, but also in coins of Stephen I. My assumption is based on Stanisława Kubiak's chronology of the coinage of Wladyslaw I in Red Russia. She supposed that this coinage started around 1387. In the territories of the "Crown" the coinage of half groats begins only in 1394, see: Stanisława Kubiak, *op. cit.*, p. 40 and 72. Another important hoard, concealed around 1400, in connexion with the troubled domestic situation at the end of the reign of Stephen I, was found at Brăiești (comm. of Brăiești, Botoșani County), see: O. Iliescu, *Însemnări privitoare la descoperiri*

The increase of the amount of the coinage intended to support the military and political activities, as well as the reduction of the economic resources caused by the unsettled domestic situation led to the loss of the largest part of the silver reserves of the country. During the 1390's and early 1400's, the "silver hemorrhagic" of Moldavia was particularly worsened by the repeated losses of the princely treasury. At least, some parts of it were already lost since 1391, when the sons of Peter I fled to Poland, after the death of their father. One could presume that once again the princely treasury was lost in 1394, when Roman I was defeated and killed by the mercenaries and the partisans of his brother, Stephen I. În 1399 the Moldavian treasury was lost on the battle field of Wrołska, when Stephen I and most of his men were killed as a result of the defeat afflicted by the Tartars. Quite likely, another major loss of the Moldavian treasury in just two years, happened in 1400, when the prince Jugu was captured and "taken away" in Wallachia, by Mircea the Elder. On that occasion, not only the defeated Moldavian prince lost his financial reserves and precious metal belongings, but also his fellow countrymen killed or taken prisoners by the Wallachians<sup>39</sup>.

The dramatic reduction of the resources then available within Moldavia during the second half of the 1390's is clearly proven either by the temporary cessation of the coinage during the reigns of Roman I (1391-1394) and Jugu (1399-1400), or by the sharp diminution of the amount of the issues during Stephen I rule and the shrinking of the coinage during the first years of the Alexander's I government. Both Corlăţeni and Mărmureni hoards witness that the amount of the issues of groats of Stephen I barely represented only 1/10 compared to those struck during the last series of Peter I.

Quite likely, the all-over scarcity of the early issues of Alexander I proves that the situation became even worse around 1400. It is quite relevant, that in all major public collections so far I studied, I found less than 100 "pre-reformed groats" of this ruler, compared with several hundreds of those of Stephen I, or to the several thousands of Peter I. Meanwhile the biggest hoard containing late coins of Peter I and Stephen I (Corlăţeni) consists of about 6,500 specimens, the largest so-far known hoard of pre-reformed issues of Alexander I (Baia 1968, Suceava County), contains only 31 specimens... No doubts, about 1400 the shortage was so great, that even melting down all the available old coins or other silver and copper items it was not enough raw material in Moldavia to fulfil the needed cash required by the political payments during the early years of Alexander's I reign.

The second major reason of the virtual absence of late 14<sup>th</sup> or early 15<sup>th</sup> century Moldavian issue in the post cca 1410 hoards was the effect of the radical monetary reform undertaken by Alexander I. No doubts, the transformations happened during the reign of Alexander I in the monetary history of medieval Moldavia represent a long lasting turning point. Since 1885, Dimitrie A. Sturdza<sup>40</sup> and later, Eduard Fischer<sup>41</sup>, Nicolae Docan<sup>42</sup>, Constantin Moisil<sup>43</sup> and Octavian Iliescu<sup>44</sup> tried to explain the true nature of the transformations happened in the Moldavian monetary system in use during 1400-1432. All of them remarked the important innovations underwent during this period, but no one, including O. Iliescu<sup>45</sup>, the author of a recently published study on this topic, had expressed clearly that most of these innovations represented the result of a profound monetary reform, developed in several stages. According to Octavian Iliescu, during the rule of Alexander I the Moldavian monetary system became more sophisticated and consisted in three denominations:

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*monetare*, in SCN, 1, 1957, p. 463-464, no 8 and recently, E. Petac and C. Preda, *Tezaurul cu monede de aur din secolul al XIV-lea descoperit la Brăneşti, jud. Botoşani*, in *In honorem Gabriel Ştrempele*, Satu Mare, 2006, p. 567-570. Unlike all the previously mentioned hoards, consisting only in silver issues, the last one contains only gold coins.

<sup>39</sup> On the political history of Moldavia during the period 1391-1400 see: N. Grigoraş, *Ţara Românească a Moldovei până la Ştefan cel Mare (1359-1457)*, Iassy, 1978, p. 56-77; C. Cihodaru, *Alexandru cel Bun (23 aprilie 1399-1 ianuarie 1432)*, Iassy, 1984, p. 40-74 and Şt. S. Gorovei, *Muşatinii*, Chişinău, 1991, p. 32-33.

<sup>40</sup> D. A. Sturdza, *Nouă descoperiri numismatice româneşti*, in *Analele Academiei Române – Memoriile Secţiunii Istorice*, 2<sup>nd</sup> series, 8, 2<sup>nd</sup> section, Discursuri, memorii şi notiţe, 1885-1886, p. 271-280, nos 1-71.

<sup>41</sup> E. Fischer, *Beitrag zur Münzkunde des Fürstenthumes Moldau*, in *Jahrbuch des Bukowiner Landes-Museum*, 9, 1901, p. 18-27 and separt pamphlet (Czernowitz, 1901)

<sup>42</sup> N. Docan, *op. cit.*, p. 151-152.

<sup>43</sup> C. Moisil, *Istoria monetei în România - Expunere sumară - 13. Activitatea monetară a lui Alexandru-cel-Bun*, in *CNA*, 2, 23-24, 11-12, 1922, p. 76-80.

<sup>44</sup> O. Iliescu, *Îndreptări şi întregiri mărunte cu privire la unele emisiuni monetare feudale ale Țărilor Române*, in SCN, 1, 1957, p. 220-221; Idem, in C. C. Kirîţescu, *Sistemul bănesc al leului şi precursorii lui*, vol. I, p. 90-91; Idem, *Moneda în România 491-1864*, p. 27-28.

<sup>45</sup> O. Iliescu, *Aspecte ale economiei monetare în Moldova sub domnia lui Alexandru cel Bun*, in *Revista Istorică*, S. N., 11, 2000, 1-2, p. 59-95.

rendered on the reverse of the coins. In this particular case, the only mint-mark used for the *MBR* 352-355 and 370-372 issues was the lily, rendered next and above the heraldic shield<sup>51</sup>.

Another important innovation regards the representation of the auroch's head depicted on the obverse of the coins. The old-fashioned representations of the auroch with "lyre" shaped horns, out-ward recurved, typical for all the issues struck by the previous Moldavian rulers (Peter I and Stephen I), or to the early coinage of Alexander I himself, were replaced by a new way of rendering the horns. On these coins the horns are rendered with a semicircular shape, curved in-ward, like C k<sup>52</sup>.

The question of the model followed by Alexander I in establishing and reinforcing his monetary reform was discussed for long time by C. Moisil and O. Iliescu. Moisil asserted that the large coins, called by him "double groats" represented the local equivalents of the Polish Crown half groats<sup>53</sup>. In a general overview of the Romanian medieval coinage published in 1964, O. Iliescu considered that both the large denomination (then called "double groats" and later, "1 ½ groats"), as well as small ones, the so-called "½ groats", were brought from the Polish medieval monetary system. According to him, the "double groats" were the local equivalents of the Lemberger or Crown ½ groats issued during 1399-1414, while the "half groats" were the Moldavian counterparts of the Crown deniers struck during 1410-1414<sup>54</sup>. Unfortunately, in his latest studies on the Moldavian coinage during the reign of Alexander I, O. Iliescu does no more mention the possible foreign origin of the new monetary denomination introduced by this ruler, and let the reader to believe that the phenomenon was rather a consequence of the local evolutions. Such a conclusion is suggested by the very assertion that the coins of a larger denomination were, in fact, "1 ½ groats", a monetary species which is missing in any neighbouring European country during the late 14<sup>th</sup> or early 15<sup>th</sup> century.

The publication by Stanisława Kubiak of a more up-to-date metrological picture on the Lemberger groats struck during 1401-1414, allowed us to conclude that the model of the monetary reform underwent by Alexander I was to be found indeed in that used during the first decade of the 15<sup>th</sup> century in Red Russia, the Polish dominion located next to the Moldavian border, and in Poland its self ("the Crown territories"). The average weight of the second type of Lemberger groats of Władysław Jagello is 1.44 g, and the median weight is 1.47 g (the modal weight is also 1.47 g)<sup>55</sup>, figures rather similar to those measured on the sample of the so-called "double groats" or "1 ½ groats" of *MBR* no 352-356 types I studied. As concerning the silver contain of the 2<sup>nd</sup> variant of Lemberger ½ groats of Władysław Jagello, the analyses published by Kubiak prove that they were struck from an alloy consisting in about 500‰ (8 lots or 12 carats)<sup>56</sup>.

As regarding the Polish deniers, the supposed prototypes of the reformed Moldavian "½ groats", they were never produced in the mint of Lwow, in the province of Red Russia, neighbouring Moldavia, but always in Cracovia or other municipal mints located in the Crown territories. The Crown deniers of type I, var. B, contemporary to the early stage of Alexander's I reign (according to Madame Kubiak, struck in Cracovia during 1396-1414) have an average weight of 0.32 g and a median one of 0.30 g (the modal weight is 0.27 g). The analyses so far published shown that they were struck according to two different standards. The early ones from seem to be struck from an alloy containing about 400 ‰ silver (6 2/5 lots or about 10 carats). The second standard used to regulate the issuing of the Crown deniers was of about 150 ‰ silver (2 2/5 lots or 3 2/3 carats)<sup>57</sup>. Although both the figures of the average weight and finesses of the Polish deniers are rather far lower than those measured for the so-called first reformed Moldavian "½ groats" of Alexander I (*MBR* nos 368-370), one could suppose that the group of these issues having a better silver contain could have offered indeed the metrological models of their Moldavian counterparts.

<sup>51</sup> The same mint-mark was used for the early issues of Peter I, struck before 1383, see *MBR* nos 71-89 and 121-122.

<sup>52</sup> However, even in this aspect there are some inconsequences during the first stage of the monetary reform of Alexander I. The "double groats" or "1 ½ groats" bearing as mint mark a helmet (*MBR* 371-374), which are, undoubtedly, reformed issues, bear on the obverse "lyre shaped" horns.

<sup>53</sup> C. Moisil, *loc. cit.*

<sup>54</sup> O. Iliescu, *op. cit.*, p. 91; Idem, *Ultimele emisiuni monetare proprii în Țara Românească. Modificări aduse sistemului monetar în Moldova*, in C. C. Chirițescu, *Sistemul bănesc al leului și precursorii lui*, vol. I, Bucharest, 1997, p. 85.

<sup>55</sup> Stanisława Kubiak, *op. cit.*, p. 75, fig. no 48.

<sup>56</sup> *Ibidem*.

<sup>57</sup> *Ibidem*, p. 96.

In spite of the assertion of O. Iliescu regarding the existence of the groats with lily mint-mark<sup>58</sup>, so far no middle sized reformed coins (equivalents of the old Moldavian groats), bearing on the reverse such mint-mark were found. The first middle sized coins (the types *MBR* 381-382) will be introduced only during the later stages of Alexander I monetary reform, quite likely only during the 1420's<sup>59</sup>. However, one could suppose that moving the same monetary designs, inscriptions and mint-marks like the "larger" issues, the "middle-seized" coins are in fact, just lighter specimens of the related coin types. Being struck so late and in a silver alloy of about 200 ‰ (3 ¼ lots or 4 4/5 carats), these issues had nothing in common with the old pre-reformed groats. In fact, they were not the equivalents of the so-called "kwartniki male" or "ternari" in the Polish monetary either. As the deniers, such denomination was never produced in the mint of Lwow. Even in the Crown mints proper, such as in Cracovia, their strike ceased quite early, by 1407 before the reformation of the Moldavian coinage by Alexander I<sup>60</sup>.

In the light of the recent researches, it is quite likely that the adoption of the new larger and smaller denominations by Moldavian mints during the early stage of Alexander I rule was a part of a revolutionary monetary reform, which led to the abandon of the old monetary system in use in this country since Peter's I reign (based on the metrological standards of the Red Russian groats struck at the end of the rule of Vladislav of Oppeln, the Hungarian duke appointed by Louis I of Anjou). The main goal of the monetary reform underwent by Alexander I was the full alignment of the Moldavian monetary system to that in use in Poland, after the cessation of the autonomous coinage for Red Russia, which was the traditional model for the local coinage during the last decades of the 14<sup>th</sup> century. Though the alteration of the Moldavian monetary system started already during the time of Peter I, with the adoption of the so-called "½ groats"<sup>61</sup>, however, there was nothing similar to compare with the deep effect of the introduction of the new larger and smaller denominations by Alexander I, *which were the equivalents of their Polish counterparts: the Crown half groats and deniers*.

Unfortunately, due to the total lack of contemporary information in the domestic or foreign historical sources so far preserved, we are ignoring both their Moldavian names as well as their mutual relationship in the real monetary or accounting systems. Based on the amount of the custom taxes mentioned in the charted granted by Alexander I to the merchants of Lwow in 1408 (renewed several times after 1432), one could suppose that the Moldavian accounting mark (called ruble or grivna) was equivalent of 100 accounting groats, or 200 real large reformed coins, equal to the Polish ½ groats<sup>62</sup>. As regarding the exchange rate between the large and small reformed issues, having into consideration that the average weight of the small one (0.40 g) represent about ¼ of that of the larger ones (1.40 g), one could suppose that their ratio was 4:1. However, due to the differences in silver content put in evidence by the analyses, a higher ratio, such as 6:1 or even more could be also taken into consideration.

The date of the reformation of the Moldavian coinage during the rule of Alexander I is not mentioned in the contemporary sources. Based on heraldic evidences, O. Iliescu dated the introduction of the new design of the auroch's horns, which is one of the most typical stylistic features of the newly established coinage, about 1408<sup>63</sup>. Despite the fact that this dating is so far not confirmed by the make-up of the hoards, it is quite likely to be correct. Such a date for the beginnings of the Moldavian monetary reform is also in

<sup>58</sup> O. Iliescu, in *RI*, S. N., 11, 2000, 1-2, p. 79, no 2. Quite likely there is confusion with the pre-reformed groats, but these coins never have mint-marks on the reverse.

<sup>59</sup> O. Luchian mention the existence of the reformed "groats", with the helmet mint-mark (corresponding to the 2<sup>nd</sup> reformed issue) (*MBR* no 375), but, in fact, such coins were not published so far, as well as their corresponding "½ groats", the so-called *MBR* no 376 type. Until a convincing evidence on the real existence of these supposed denomination will be provided, I consider that *MBR* nos 375-376 are fictitious ones. Constanța Știrbu, *Colecția de monede medievale românești Dr. Rudolf Gassauer*, in *BSNR*, 75-76, 1981-1982, 129-130, p. 333, no 42 described a coin with the "dolphin" mint-mark, corresponding to the 3<sup>rd</sup> reformed issue, asserting that it belongs to the denomination of "groats". It is true that the weight of the coin is only of 0.78 g, but its diameter fits quite well in those of the so-called "double groats". I consider that further evidences are needed to prove the clear existence of the "groats" with "dolphin" mint-mark.

<sup>60</sup> Stanisława Kubiak, *op. cit.*, p. 85-86. According to the author the last group of Cracovian ternary (type VI) have an average weight of 0.66 g, a median weight of 0.67 g and a modal of 0.69 g and was struck from an alloy 332.42 ‰ (5 1/3 lots or 8 carats).

<sup>61</sup> O. Iliescu, *Moneda divizionară emisă de Petru Mușat*, in *CN*, 3, 1980, p. 87-92; Elena Petrișor, *op. cit.* For this denomination see also *MBR* no 92 a.

<sup>62</sup> The Polish accounting mark (grivna) was equivalent of 48 accounting groats, or 98 real ½ groats, while the Lithuanian accounting mark (kopa), used also in Podolia, the neighboring country to Moldavia, was equal to 60 accounting groats, or 120 real ½ groats.

<sup>63</sup> O. Iliescu, in *SCN*, 1, p. 232.

accordance with the chronology of the Polish coinage during the first decade of the 15<sup>th</sup> century: the introduction of the Royal monetary standards for the ½ groats in Lemberg in 1401, or the ceasing of the activity of the autonomous coinage in Red Russia during 1408-1414.

The radical reform of the Moldavian coinage, which took place during the last years of the first decade of the 15<sup>th</sup> century, caused the massive call back and the melting-down of the old groats issued under Peter I and Stephen I, as well as of the first issues of Alexander I, which had no more place in the new monetary system. Obviously, a large amount of them served as raw material for the subsequent reformed issues of Alexander I, or they were just exported to Poland or Hungary, as raw metal.

The effect of the reform of Alexander I was even more heightened by those made during the last reign of Peter III Aaron (1456), as well as under Stephen III (around 1465-1474 and 1476-1479)<sup>64</sup>, which further lowered the possibility of official or officious circulation even for Moldavian issues struck before 1456. As a consequence of these monetary reforms the old issues, struck before the end of 14<sup>th</sup> century could have been no more easily integrated in the new legal systems.

The consequences of Alexander's I monetary reform were so radical that it led not only to the rapid call back of the issues of Peter I and Stephen I, but it also led to the "de facto" disappearance from the local monetary market of all the Moldavian issues made before cca 1408. While the hoard found at Mărmureni contained 159 coins attributed to Peter I and Stephen I and only one to Alexander I, virtually none of the subsequent hoards concealed during the reign of that prince, irrespective of its location, in Moldavia or outside the borders of that state, contained any issue older than the second decade of 15<sup>th</sup> century<sup>65</sup>. That fact proves that, even prior cca 1408, the issues struck before Alexander's I reign, which had a richer silver content, were no longer available for hoarding. Obviously, in less than a decade, the old monetary stock already got successfully recycled.

Quite likely, the presence of the groat issued by Peter I in the hoard found in Iassy/2002 can only be explained if one supposes that it have been incidentally recovered from a single find or from a hoard, and then reintroduced into circulation during the first decades of the 17<sup>th</sup> century<sup>66</sup>. The integration of a coin from the end of the 14<sup>th</sup> century into circulation during the first half of the 17<sup>th</sup> century, even being cancelled by a knife stroke did not raise any special problems, as long as it was of silver. This situation was due to the "hunger for cash" in silver happened in Moldavia, as well as to the use of an extremely large variety of foreign coins with a similar size of their blanks on the internal monetary market during the first decades of the 17<sup>th</sup> century. All of those coins had the weight and title near to that of the Moldavian issues made during the last decade of the 14<sup>th</sup> century. According to all probabilities, because of the external appearance, the Moldavian coin got assimilated to the Polish and other Baltic states 1 ½ groats and was accepted as such by the owner of the hoard in Iassy.

The find of a groat issued during the reign of Peter I in a hoard which was concealed during the first half of the 17<sup>th</sup> century proves that the owner accumulated without restriction any kind of coin available on the market, irrespective of origin, quality or the possibility to use them legally to make official or private payments. Probably the main aim of the person who made the hoard was only to gather as much precious metal as possible.

<sup>64</sup> On those monetary reforms, see: E. Oberländer-Târnoveanu, *Emisiunile monetare bătute pe teritoriul Moldovei în vremea lui Ștefan cel Mare (1457-1504) – O analiză critică*, in CN, 9-11, 2003-2005, p. 420-441.

<sup>65</sup> Excepting Rădăuți hoard 1935, mentioned above.

<sup>66</sup> I suppose that the unusually large number of the Golden Horde issues, struck during the reigns of Uzbek (1313-1339), Ganibek (1339-1357) and 'Abdallah (1362-1369) which are present in the hoard in Săseni, could represent a part of a monetary find from the 14<sup>th</sup> century, which was uncovered by chance during the first decades of the 16<sup>th</sup> century, and later kept for the intrinsic value of the precious metal itself.

