**IRAKLI PAGHAVA**
Giorgi Tsereteli Institute of Oriental Studies
Ilia State University,
Georgia
mesefi@gmail.com

# ONCE AGAIN, ON THE VALUE OF THE IRREGULARLY STRUCK GEORGIAN AND CAUCASIAN COINS AND RUSUDAN'S MONETARY REFORM

The aim of the paper is to put forward new arguments in order to revise the innovative opinions expressed in recent literature regarding the nature of irregularly struck Georgian (and regional) coins and Queen Rusudan's monetary reform. The analysis proves the correctness of Yevgeny Pakhomov's opinion: payment by irregularly struck copper coins was made based on their weight. It is unlikely that right after of her enthronement Rusudan already considered the monetary reform (prohibition of irregularly struck coins and their substitution exclusively by regular ones). In our opinion, the reform was caused by Jalal-Ad-Din's raids and his emission of irregular copper coins. The metrological "irregularity" of Rusudan's regularly struck coins must be connected with the urgent necessity of mass and quick emission of coins in Kutaisi.

**KEYWORDS:** irregular coins, regular coins, Queen Rusudan, Jalal-ad-Din, monetary reform.

From the period of occupation of Tbilisi by David the Builder through Rusudan's reign, Georgian coins form an integral part of "The Golden Age" in Georgian history. Coins represent the most significant source of information regarding the economic, political and cultural processes in the Kingdom of Georgia.

Georgian coins have been thoroughly studied. Recent discoveries are very significant from the viewpoint of typology: exclusively Arabic, mono-epigraphic money issued by David the Builder after the occupation of Tbilisi (Paghava 2012); and exclusively Arabic, mono-epigraphic money issued by Dimitri I (Turkia, Paghava 2009; Paghava, Turkia, Zlobin 2011). Yet, a complex study of the phenomenon of money of the united Georgian kingdom is impossible based solely on typology; it is also necessary to identify the conceptual features of contemporary Georgian (and regional) coins.

Conceptually, Georgian coins of the given epoch are divided into two categories. The chronological framework extends beyond the reign of any

specific Georgian monarch. The categories are: irregularly and regularly struck coins[1]. The concepts first introduced by an outstanding specialist in Georgian numismatics, Yevgeny Pakhomov, have been defined by the author as follows:

- *Irregularly struck coins* are formless pieces of copper bearing only a fragment of the regular (round) die imprint; these coins vary in size, form, and, especially, shape. It is highly probable that their value was defined by weight i.e. despite their number, they represented a certain value based on the entire weight of a certain multitude of coins (Pakhomov 1970, 75, 85);
- *Regularly struck coins* represented a certain value each. Besides, the form and size of the usually regular (circular) blanks corresponded to the round dies (Pakhomov 1970, 85).[2]

Some Georgian monarchs of the given epoch issued both types of coins, whereas others issued either regular or irregular ones – See Table 1.

Rusudan ceased to issue irregularly struck coins: In 1227 a new type of coins with the name of the Queen was issued. These were regularly struck coins. Since then, irregularly struck coins have not been issued in Georgia (Pakhomov 1970, 104-105); It seems, Queen Rusudan prohibited the irregularly struck coins, issued by her predecessors and considered legal means of payment even after the death of the issuer Georgian King (Paghava 2018, 83-84). Rusudan's reform must have been caused by Jalal ad-Din's invasion, who issued his own irregular coins in large amounts: re-struck the irregular coins of Georgian Kings that he had gained as trophies; probably also issued his coins from metal (Patsia, Paghava 2009, 42-46); they all circulated freely. By introducing regularly struck coins and prohibiting irregularly struck ones (issued by her predecessors as well as Jalal-ad-Din), Rusudan tried to banish Jalal ad-Din's money from the market. Jalal ad-Din had also issued regularly struck coins, but they were extremely rare (Patsia, Paghava 2009, 42-43). In this way, Rusudan desired to cause financial damage to the conqueror (Pakhomov 1970, 104-105; Paghava 2018, 85-86).

This concept, worked out by Yevgeny Pakhomov, is quite convincing.

1 We prefer to use the term "Striking" instead of "Cutting", due to the inscription on the coins issued by Tamar and Giorgi IV Lasha, where the term "Striking" is used (Paghava 2018, 56, 59).

2 Yevgeny Pakhomov also wrote that regular coins were distinguished from the irregular ones by design: regular coins "always" have figures and objects on them, while irregular ones have inscriptions distinguished by ornaments or lines (Pakhomov 1970, 85). According to Davit Kapanadze's correct opinion, Lasha Giorgi's so-called „Lord of Javakhs" regular coin, which is mono-epigraphic, contradicts this assumption (Kapanadze 1970, 298); or, at least, represents a significant exception.

In our opinion, it perfectly corresponds to the preserved factual material (frequent discoveries of irregularly struck coins may point not only to intense emission, but also to the loss of their legal status, due to which the population no longer took care of such coins). Despite this, in recent scholarly literature, there have been attempts to revise Pakhomov's opinion. In this regard, mention should be made, on the one hand, of Alexander Akopyan and Yevgeny Goncharov's article, and, on the other hand, Maia Pataridze's work (Akopyan, Goncharov 2019, 291-292; Pataridze 2019, 57-58).

The above issue is so important for the Georgian numismatic history that we consider it our foremost task to analyze each and every opinion. We should note, however, that the arguments and conclusions of our respected colleagues do not convince us. Thus, the **aim** of the given paper is the so-called counter-revision of recent attempts to revise Yevgeny Pakhomov's concept.

*

In the paper published in 2019, A. Akopyan and Y. Goncharov tried to prove that irregularly struck coins with several pairs of die imprints (the so-called double, triple, quadruple etc... so to say, multiple), represent a *multiple* denomination of coins with a single pair of die imprints. Their argumentation consists of several postulates (Akopyan, Goncharov 2019, 291-292):

1. Multiple coins (their blanks) are of diverse form, but never round (the authors' characteristic "a");
2. They have equal number of die imprints on both sides (Authors' characteristic "b");
3. „Almost always" / „apart from certain rare exceptions", the die imprints are strictly distributed among the front and back sides of the coin: obverse imprints on one side, and reverse imprints on the other side (authors' characteristic "c");
4. The necessity of emission of multiple nominals of copper Dirhams (the authors use this term to denote irregular coins[1]) is proved by a large amount of copper coins accumulated by the population and the absence of "more valuable" silver or gold coins ("отсутствие в обращении более дорогих монет из серебра или золота") [probably, coins of higher value - I.P.].

It seems, Georgian numismatist Maia Pataridze also shares this opinion; at least, she is inclined to agree with the above-mentioned scholars: „Just to raise the issue, I consider it probable that the denomination was

1 We have discusses this issue in another article: whether, the term *Drama* /*Dirham* was used to denote regular or irregular copper coins (Paghava 2011, 323-328).

defined based on the number of dies [pairs of die imprints - I.P.[1]] namely, one denomination equaled one die [a double imprint of a pair of dies - I.P.]" (Pataridze 2019, 58).

Our colleague brings the following arguments (Pataridze 2019, 58):

1. Neglect of weight in Rusudan's regular coins („in regularly struck coins emitted by Rusudan, the weight is, to a certain extent, ignored. This makes us think that the weight did not represent a priority in irregularly struck coins either");
2. Coincidence between the locations of die imprints on the front and back sides – "This rule is strictly preserved. This makes us think that each die [double die imprint - I.P.] is a denomination corresponding to one coin" (this argument is similar to the above-mentioned Argument 2, expressed by Akopyan and Goncharov);
3. The simplicity of payment by irregularly struck coins without weighing – "in this way, it would be much easier to trade with this money than to identify the denomination by weighing at every payment."

According to Maia Pataridze, "this assumption must be followed by further complex (interdisciplinary) research, in order to regard the issue as thoroughly studied". Prior to such thorough analysis, the author simply expresses her "careful assumption" (Pataridze 2019, 58).

Below we will discuss my colleagues' arguments separately.

It is impossible to disagree with the argument of Alexander Akopyan and Yevgeny Goncharov, saying that multiple coins (Figure 1) or their blanks are characterized by diverse forms, but that they are never round (Akopyan, Goncharov 2019, 291-292). We will simply add that single irregular coins are sometimes also diverse in form (Figure 2); However, in certain cases, they are also round (Figure 3), but this is accidental and conditioned by the technology of producing the blanks (Pakhomov 1969). On the average, multiple coins are, naturally, bigger than single ones. The bigger the blank, the less the probability of achieving a round shape. Albeit multiple coins vary in shape and are far from being round, it is unclear why they shall represent a multiple denomination of the single ones? In our opinion, such conclusion is illogical.

We agree with Akopyan and Goncharov that multiple coins have equal number of die imprints on both sides (Akopyan, Goncharov 2019, 291-292); we also agree with Maia Pataridze in that the locations of obverse die imprints exactly coincides with reverse die imprints (Pataridze 2019, 58). This is natural due to the technology of producing multiple

1 The author uses the term "Die" to denote the imprint on a coin. The same term is used to denote metallic artefacts used to stamp the design of the coin on the blank. In order to avoid ambiguity, we use the term "die" in the second meaning, and the term "imprint" *(imprint on the front side/imprint on the back side of the coin)* to denote the first meaning.

coins – the blanks were placed on the lower die (technically speaking, the obverse) adjusted to the anvil. Over it was placed the upper (technically speaking, reverse) stamp, which was hit with a hammer. In case of a single coin, the process ended in this; in case of a multiple coin, the blanks was again placed on the lower die (slightly averted from the previous location of the blank[1]) and again struck with the upper die; in case of double coins, the process was repeated twice; in case of triple coins – thrice and so on. Thus, it is quite natural that multiple coins have an equal number of die imprints on both sides, and the location of die imprints is exactly the same on the front and back sides. Yet, even in this case, it is unclear why multiple coins should be considered multiple denominations of single ones. The equal amount of die imprints on both sides and their doubling (correspondence with each other) are facts related to the technical process. The reason for the process is not explained, hence, the question: why did multiple coins have more than one couple of die imprints? Thus, in my opinion, this is not a valid argument either.

Akopyan and Goncharov's another argument is that striking of the blanks was strictly controlled: "with rare exceptions", obverse dies were applied to one side of the coin, and reverse dies – to the other side; obverse die imprints are grouped at one side, whereas reverse die imprints – on the other side (Akopyan, Goncharov 2019, 291-292). This is not a valid argument. Even if it were true, due to the nature of the technological process described above, in case of repeated striking, it would be logical to think that a blank already struck with a die would not be reversed, and the second imprint of the obverse die would be made beside the first one, and vice versa. However, observation of the coins proves that, frequently, both front and back die imprints are found side by side on multiple coins. For instance, in Samshvilde hoard, there were only 9 double coins (1 issued by Giorgi III, 5 issued by Tamar and 3 issued by Giorgi IV) (Pataridze 2019, 70, 133, 136, 145, 175, 197, 240, 254, 284); out of these 9 coins, on 4 ones the front and back die imprints are side by side (Pataridze 2019, 133, 136, 145, 254). It is obvious that there was no strict control during the emission of double or multiple coins as to the location of die imprints. Thus, this argument is not valid either.

A. Akopyan and Y. Goncharov also add (what seems like another argument) that it was necessary to issue multiple denominations due to a large amount of copper coins (irregularly struck) among the population and the inexistence of coins of high value in circulation (Akopyan, Goncharov 2019, 292). In this regard, we must mention that in Georgia of the given epoch, there were coins of high value, if

1 Besides, the distance - degree of averting – was varied: in case of multiple coins, stamps were often placed above each other. This was especially frequent in case of earlier multiple coins issued by Dimitri I and Giorgi III (Paghava, Bliadze, Chumburidze 2020, 27, 29-31).

not silver circulating some coins, at least gold ones (Dundua, Dundua 2006, 211-221). This satisfied the demand of the wealthy population on the coins of high denomination/value. There were also regularly struck copper coins in circulation (Paghava 2018, 78-79, 85). Besides, even if we assume that double, triple and quadruple coins were of double, triple, quadruple value correspondingly, this could not have been that beneficial for the population.[1] Besides, what is most important, existence of demand does not mean that this demand would be satisfied. For instance, in the Kingdom of Moscow, there was high demand on the money of high value, but, from Elena Glinskaya's reform of 1535-1538 until the reign of Peter I, the money of very low value was issued and used – silver Polushka, Denga and Kopeika (Melnikova 1989, 29-30, 199-204). The state failed to emit money of higher value, and the reform of 1654-1663 ended in failure (Bazilevich 1936). Thus, this argument is also invalid and cannot prove that multiple coins constituted a multiple denomination of single ones.

Maia Pataridze also argues (Pataridze 2019, 58): „If the weight of regularly struck coins issued by Queen Rusudan is, to a certain extent, neglected, can we think that weight would be a priority in irregularly struck coins?!"- it seems, the scholar assumes that the number of double die imprints was more important than weight. It is hard to answer why neglect of weight of *regularly struck coins* is a sign of lack of priority of weight *in irregularly struck coins.* We are speaking of two completely different coin categories – regularly struck coins and irregularly struck ones (another issue, concerning the neglect of weight in regularly struck coins issued by Rusudan, will be discussed separately below - vide infra). On the contrary, it is highly probable that the attitude to weight was different in case of these two categories of money.

According to our respected colleague, payment by irregular coins would be much easier if the value of separate coins were defined based on the number of pairs of die imprints (one pair of imprints = one denomination) instead of weight. This would help avoid the time-consuming process of weighing separate coins of a group of coins during payment (Pataridze 2019, 58). We should also take into account the fact that scales were not always available. However, "would be" does not always imply "was". Let us explain: it has been proved that Georgian irregularly struck coins are a product of degradation of silver, billon or copper Dirhams issued in Tbilisi, occupied

1 Taking into account the economic situation in independent Georgia in 2020, we assume that an ordinary resident of the country does not care whether he/she has one GEL coin or two GEL coin, or, hypothetically, coins of three, four GEL value; for the national economy, it is significant to have units of money of higher value – the banknotes (or money made of some other material) of ten, twenty or hundred GEL value.

by Moslems, under the aegis of first the Ja'farid emirs, and later the Great Seljuks. The silver Dirhams of the Ja'farids, are "direct descendants of the classical Dirhams of the 'Abbasid Caliphs" (Paghava 2012, 242-245; Paghava 2015, 255-258, 266-267). Thus, if we observe the evolution of currency, it is obvious that Georgian irregular coins are related to the Islamic world and its numismatic past. It is widely known that irregular coins appeared in the Islamic space at the end of the 10th century (Pakhomov 1926, 24); in Eastern Europe, the circulation of pieces of Kufic coins, i.e. the circulation based on the weight, started in the 930s and became a universal phenomenon by the 11th century (Fomin 1984). To come back to Georgia, the coins issued by 'Ali B. Jafar in Tbilisi, are extremely irregular, with dimensions of 5-30 mm and weight range of - 0.12-5.23 grams. According to Davit Kapanadze, these coins, dated by the first third of the 11th century, may be considered as irregularly struck units of money (Kapanadze 1961, 72-73, 75-76); circulation of such money, to use the terms of Yevgeny Pakhomov, was possible only based on weight, i.e. on „a standard value of the amount of weight" (Pakhomov 1926, 24). Moreover, according to Irine Jalaghania, cut and broken Kufic coins were in Georgia (and the entire Caucasus) already in the second quarter of the 9th century (Dlivi Treasure), and, as the hoard evidence has proved, these coins remained in circulation until the beginning of the 11th century (Jalaghania1976, 16-17; Jalaghania 1979, 53-55). It is logical to conclude that, fully or partly, the existence of hoards consisting of large or small broken pieces of coins proves that payment was implemented based on the weight of such pieces. Thus, observation of the numismatic history of the region, and, in particular, Tbilisi, proves that scales were used in the process of payment. Even though this method was impractical, it was widespread for centuries until Dimitri I, son of David the Builder, issued double irregular coins (Paghava, Bliadze, Chumburidze 2020, 25-27).[1] Despite the inconvenience of paying while holding the scales, circulation of coins by weight was undoubtedly widespread for ages in Georgia and elsewhere. Since it had been a widespread practice for centuries, it could have been continued in the 12th century, during the reign of Dimitri I, as well as during Rusudan's reign. Therefore, we would argue that the given argument is unconvincing.

Based on the analysis, we have arrived to a conclusion that there are no reliable arguments proving the valuing the irregular coins by the number of die imprints and not by weight. Taking this into account, Y. Pakhomov's hypothesis seems convincing (Yevgeny Pakhomov himself was very careful when he formulated his concept and used the term "Assumption" (Pakhomov 1970, 75)). According to Pakhomov, unlike regular coins, the

1 We cannot exclude the possibility of discovery of irregular multiples issued by David IV the Builder.

irregular coins with variable size, weight and shape were valued based on their weight, i.e. these coins of a certain specific weight (still unknown)[1] represented a unit of money despite their number (Pakhomov 1970, 75, 85) – otherwise, it would be hard to explain the circulation of such coins.

Y. Pakhomov's hypothesis can be proved further based on three more arguments.

If A. Akopyan, Y. Goncharov and M. Pataridze are right, and irregular copper coins were valued by number and not weight, if their value depended on the number of die imprints, then what was the use of issuing regular and irregular coins separately? Regular coins were valued based on their number (Y. Pakhomov has proved this undoubted fact). It turns out that the mint was technically capable of issuing coins of comparatively narrow remedy allowance with more or less regular (circular) shape and more or less stable weight (this can be proved by the fact of emission of regular coins). However, the mint issued (more or less simultaneously) both regular and extremely irregular coins, which, according to our respected colleagues, were valued based on one and the same principle. What was the point of issuing two types of coins simultaneously, if one type was of standard size, shape and weight, and the other was extremely variable in size, shape and weight, and, according to our colleagues, was valued by units, based on the number of die imprints? We would repeat once again that the nature of regular and irregular coins issued simultaneously must have been different, and their value must have been defined differently. Otherwise, there would be no point in issuing two types of coins.

Our second argument (to a certain extent, *argumentum ad absurdum*) is as follows: if A. Akopyan, Y. Goncharov and M. Pataridze are right, if irregular coins were valued based on the number of die imprints, if, supposedly, double coins were of double value as compared to the single ones, then all the coins with equal number of die imprints were of the same value; i.e. all triple coins were of the same value, all double coins were of the same value, and all single coins were of the same value, despite their weight. Yet, we all know that the weight of single coins was largely variable: according to Y. Pakhomov, the weight of these coins varied from several Dolyas (0.04 gram) to half a pound (i.e. 204.77 grams) (Pakhomov 1970, 85). I will bring the example of two coins, weighing 1.00 and 40.38 (arbitrarily considered as 40 grams) grams (Picture 4). Both coins bear one pair of die imprints. Hence, according to our colleagues, these coins must have had equal value. Naturally, it is hard to believe that coins with 40-fold difference in weight (to say nothing of the size) were of equal value, and the authorities were so wastefully spending 40 times more metal, even if the

1 Possible connection of the weight standard of the Georgian money of this epoch with Drama as a unit of weight was discussed in our earlier research (Paghava 2011, 322).

metal were inexpensive, when they could spend much less metal on the emission of coins of the same value. Moreover, it would be prudent to recall Kopernik-Gresham's law: in case of the same value (one and the same denominational value), the superior one i.e. having more internal value, is excluded from circulation (and becomes hoarded). If coins weighing 1 and 40 grams are of equal value, the more costly i.e. heavier coins will be excluded from circulation and may be melted as metal. This will not happen only if the value of 40 grams of copper melted from 40-gram coin is less than the value of 1-gram irregular coin (which would make the operation unprofitable). However, if we assume that Georgian irregular coins had such vivid credit nature - 40+-times higher than the metal used for the coin[1] (which is practically unbelievable), then the population (some of its elements) or the monarchs of the adjacent regions would be tempted to melt the heavy, 40-gram coins and emit about 40 *false* 1-gram coins, thus gaining enormous (3900%) profit. In the state mint, emission of irregular coins (from copper provided by the population) would be *blocked*, or *seigniorage* would be very high in accordance with the likelihood of credit nature of irregular copper coins and their profitability for the treasury. Thus, emission of coins from the obtained metal would be possible only in a *non-State Mint*, in fact, by way of producing false coins. I will bring a significant albeit asynchronous parallel from the numismatic history of the Russian Empire, namely, the story of issuance of copper coins in the XVIII century: it is well-known that, with the aim of utmost exploitation of financial profit of monetary regalia, Russian Emperors periodically tried to reduce/increase *the weight standard*, i.e. attach more (denominational) value to copper of the same weight transformed into a coin; for instance, from 1 pood of copper (approximate value – 8 roubles) in different periods, copper coins worth 10, 16, 32 and 40 roubles were issued (Uzdenikov 1994). In the Russian Empire and elsewhere, issuance of false money became most intense after the weight standard reached 40 roubles made of one pood of copper (worth 8 roubles) (Uzdenikov 1994, 20-21, 27-28). By that time, the value of monetized copper was 5 times higher than the value of metal from which it was produced; mass falsification of copper coins forced the government to restrict its fiscal appetite and radically reduce the denominational value of monetized copper (Uzdenikov 1994, 28-36). By the way, we have expressed an opinion that also in the 18th century, King Erekle II was forced to abstain from issuing his own copper shauri coins, taking after the Russian heavy-weight copper 5-kopek coins. For the market, such money – the denominational value of which was much higher than that of the metal constituting it – was unacceptable (Paghava

1 Naturally, a coin with lower value than the value of the metal in its content could not have been emitted.

2012, 236; Paghava 2017, 250). It is unlikely that, in another epoch, namely, in case of Georgian irregular coins, the value of monetized and non-monetized copper would be 40 times different. Irregular copper coins must have been credit money, which, according to Y. Pakhomov, "largely" exceeded the value of copper from which it was made (Pakhomov 1926, 24). However, in our opinion, not 40-fold.

The third argument is: as we have proved, irregular coins of Georgian kings are direct descendants of the coins previously issued in Tbilisi and valued by weight (Paghava 2012, 242-245; Paghava 2015, 255-258, 266-267). If the value of coins issued in Tbilisi depended on the weight, it is logical to think that, in fact, nothing would be changed later, and single irregular copper coins issued by Georgian monarchs would also be valued by their weight. If *single* irregular copper coins were valued by weight, it is highly probable that *double, triple* and *multiple* coins were also valued based on their weight.

Taking into account the above analysis, we disagree with the attempts of revision of Yevgeny Pakhomov's hypothesis and consider that irregular Georgian coins (and, most probably, coins issued by other dynasties of the region) were valued by their weight. This concept is the most logical and suitable one, considering the coins proper and their metrological diversity.

Yet, there is a question: why did some large coins bear double or triple die imprints?

Theoretically, we can combine both opinions regarding the value of irregular copper coins – I mean Yevgeny Pakhomov's opinion and the opinion discussed above: single irregular coins of certain standard weight had a fixed value, double irregular coins of the same weight had double value, and so on. However, this version is overly complicated and artificial, hence, less convincing.

We personally think that the blank of a coin was struck with a pair of dies several times because it was significant to cover the surface of an unusually large blank more or less entirely with epigraphic-iconographic elements constituting the type of coin. This would be important for proving the legal status of heavy (i.e. valuable) coins (yet, there are cases when the surface of a single coin is only partially covered with die imprints - Fig. 4).

*

Since we have dwelt upon the nature of irregular coins, it might be reasonable to come back to Rusudan's reform, namely, the causes of termination of emission of irregular coins in Georgia, and, in general, the phenomenon of regular (Georgian) coins.

In an article published in 2019, Maia Pataridze expressed an interesting and innovative idea[1] claiming that, upon her enthroning, Rusudan had taken a decision regarding the termination of emission of irregular coins and issuance of exclusively regular coins (Fig. 5). That is why she abstained from legitimization of herself by way of issuing her own (irregular) money and restricted herself to countermarking the coins issued by her predecessors. It should be noted that, based on the nature of the countermark, particularly the smaller countermark of Rusudan, it was perhaps hard to identify whether it pertained to Rusudan. Yet, Rusudan failed to implement the reform upon her enthronement: "She was getting ready for the reform which required significant mobilization of resources. Therefore, temporarily, she limited herself to countermarking the coins that were already in circulation. This was a kind of declaration of her enthronement"; „Finally, the financial reform – extraction of irregular coins from circulation – was implemented by Rusudan after Jalal ad-Din's raid, with the aim of prohibition of circulated coins re-stamped by Jalal ad-Din" (Pataridze 2019, 57).

The above-mentioned opinion is very interesting. Indeed, it is unclear why Rusudan did not issue her own money upon her enthronement in 1223. We can recall that Rusudan's brother and her immediate predecessor Giorgi IV Lasha issued his own money upon his enthronement in 1210 (we support the opinion that Giorgi Lasha replaced Tamar in this year). However, Tamar, mother of Rusudan and Giorgi IV, started issuing her own money in 1187, 3 years after the enthronement. Albeit it is also possible that before 1187 she issued money together with her first husband Giorgi

1 In the same research, the author provides extremely interesting information regarding the discovery of exclusively Arabic-language coin issued by David the Builder. This coin was found in Nichbisi hoard (Pataridze 2019, 55-56). This coin from Nichbisi hoard found in 1961 pertains to the type that has been analyzed by us, and we have concluded that it pertains to David the Builder (Paghava 2012). This discovery is very interesting for the following reasons:

1) It proves that the mono-epigraphic Arabic-language money issued by David the Builder after the occupation of Tbilisi was valid also during the reign of David's descendants and heirs; 2) It proves our opinion regarding Georgian coins. Namely, that the money issued by previous monarchs was gradually excluded from circulation (Paghava 2018, 80). In this regard, the hoard found in Nichbisi is more of an etalon due to its content: the share of David the Builder's coins is 0.07%, that of Dimitri I is 0.2%, the share of earlier and later coins issued by Giorgi III is, correspondingly, 1.3 and 6.1%, the share of coins issued by Tamar is 40.8%, those issued by Giorgi IV Lasha is 38.1%, and those issued by either Tamar or Giorgi - 10.5%.

In the above-mentioned article, Maia Pataridze analyzes the content of 10 hoards of Georgian coins of the 12th-13th centuries (Pataridze 2019, 54-55). According to our classification, these hoards belong to the Group 3 (Paghava 2018, 79-81). An interested reader can find information about the classification as well as 35 hoards analyzed in the process of classification (including the above-mentioned 10 hoards) in the corresponding work (Paghava 2018, 66-87).

the Rus (Paghava, 2020).

We still argue that, upon her enthronement, Rusudan did not intend to implement the reform:

1. Why should the emission of regular coins and prohibition of the irregular ones be planned by Rusudan and why should this be planned for the year 1223? We cannot exclude that Rusudan developed this idea. Yet, the coincidence is striking: Jalal ad-Din's invasion and circulation of coins re-struck by the latter or issuance of new coins from metal which were mostly irregular. This indicates that the idea of the monetary reform, in the form it was implemented, probably occurred to Rusudan's administration in the years 1226-1227, and not in 1223;
2. Another question is: what kind of "significant mobilization of resources" was necessary for the emission of regular coins? What could have hampered Rusudan (or her administration) in issuing regular coins and prohibition of irregular ones (legalization of circulation of exclusively regular coins[1]) already in 1223, if she had this intention right after her enthronement?

According to our respected colleague, the *irregularity* of weight of regular coins issued by Rusudan points to her unreadiness for this reform: "The "*occupation*" of Georgian coins by the conqueror accelerated Rusudan's court in implementing an activity for which they were unprepared. This became especially obvious based on the weights of regular copper coins issued by Rusudan" (Pataridze 2019, 57). According to M. Pataridze, "The weight of Rusudan's coins is far from regular, same as the weight of irregular coins" (Pataridze 2019, 58); „namely, if the unit of measurement of value depended on the weight, then, logically, Rusudan's regular coins must have had regular weight related in some consistent pattern. The study of Rusudan's copper coins has proved that they did not meet any standards of weight". After this argument, the author brings weight indices (largest and smallest) of Rusudan's coins from 1935 Krtsanisi treasure: 2.30 and 12.0 grams (Pataridze 2019, 57). The *irregularity* of Rusudan's regular coins (variability of weight) has also been discussed by Tamar Lomouri and Davit Kapanadze. Tamar Lomouri mentions coins of 12 and 13 grams (Lomouri 1938, 291), whereas Davit Kapanadze mentions the weight ranges: "1-16 grams" (Kapanadze 1969, 80). According to our respected colleague, the reform "affected only the shape of coins" and appplying only

1 The question is whether that implied only Rusudan's own coins, or those issued by her predecessors, for instance, Tamar and David's famous and widespread regular coins, as well? Considering the fact that the hoards of Rusudan's epoch (according to our classification, Group 5) consist exclusively of Rusudan's regular coins and almost do not comprise Tamar's or David's regular coins (Paghava 2018, 82-83); we would carefully assume that both regular and irregular coins issued by predecessors were prohibited.

one pair of dies to the coin blank" (Pataridze 2019, 58). Does our respected colleague mean that Rusudan's regular coins constituted the result of transformation of irregular coins?

We have a different opinion. We will start by mentioning several principal circumstances.

To begin with, wide weight range does not exclude the existence of a specific *weight standard*, or, to be more precise, the existence of a specific weight standard. Thus, the variability of weight of certain coins, even in a wide range, does not exclude the existence of a plan to issue a definite number of coins from the metal of definite weight. The range could have been quite wide for several reasons: limited technical capabilities, haste, economic inappropriateness of taking care of the weight standard of coin blanks when issuing coins made of cheap metal, especially if the coins were made not *al marco* but *al pezzo*. Therefore, the existence of weight standard cannot be ruled out.

Despite the wide range of Rusudan's irregular coins, in our opinion, it is impossible to argue that Rusudan's regular coins and previous monarchs' irregular ones are equally "far from standard". As we have shown, the weight of irregular copper coins, even if we take the single ones, ranges from 1 to 40 grams (Fig. 4). This means, that the weight vacillates to a much higher extent than in case of Rusudan's regular coins.

In general, when talking of Rusudan's regular coins, we should ask a question whether it is reasonable to use the concept of *weight*. In Y. Pakhomov's initial definition of regular coins, *weight* is not mentioned whatsoever, and attention is paid to the standards of shape and size, as well as the value of individual coins (Pakhomov 1970, 85). The concept of weight was first used by Tamar Lomouri with regard to regular coins: regular "coins of certain shape and weight, represented a stable currency, whereas coins devoid of standard weight and shape could not have had a definite value" (Lomouri 1938, 288). Davit Kapanadze also discussed the concept of weight (Kapanadze 1969, 73). weight aspect of regular coins became established in Georgian numismatic science. Yet, we should keep in mind that in the initial definition by Y. Pakhomov, weight was not mentioned altogether.

Discussion of the *irregularity* of Rusudan's regular coins, solely based on the data of the lightest and heaviest coins, is methodologically incorrect. These extreme data may represent statistic outliers. We should also take into account other data of descriptive statistics: above all, *medium* and *standard deviation* and *variability indices*. We have carried out this kind of research with reference to Giorgi Lasha's regular coins (Paghava 2011, 319-321). However, Rusudan's coins have not been analyzed in this respect. Yet, even empirical evaluation of the monetary complexes consisting of Rusudan's regular coins proves that this currency as a unity is not as *irregular* as it may seem, if we consider only the extreme data.

We will say few words about the causes of *comparative irregularity* of Rusudan's regular coins, which are, empirically, more *irregular* than the regular coins issued by Tamar and David Soslan, as well as Giorgi Lasha.

According to Tamar Lomouri, "such significant difference in the weight of individual coins is not normal for regular coins. This phenomenon may be explained by the different value of coins or, most probably, by the vestige of striking irregular coins" (Lomouri 1938, 291). According to Davit Kapanadze, „the fact that Rusudan's copper coins are sometimes made of angular tablets of irregular shape, and the fact that the weight range is quite variable (1-16 grams), can be explained as follows: old irregular and outdated coins were used as material for the regular ones" (Kapanadze 1969, 80). However, as we have mentioned above, according to Maia Pataridze, the reason is that Rusudan and her administration were unprepared for the reform which was implemented hastily: "Initially, the reform envisioned by Rusudan's court implied the change in the emission of coins as well as regulation of the weight standard. However, as it seems, extraction of Georgian coins re-struck by the Chorasmian conqueror was such a pressing task that the reform was limited to the change in the shape of coins" (Pataridze 2019, 58).

Tamar Lomouri's idea that *comparative irregularity* of Rusudan's regular coins was due to the "vestige" of issuing irregular coins, does not seem logical. The long-standing tradition of emission of irregular coins did not hamper either Tamar and David Soslan, or Giorgi Lasha in the issuance of much more *regular* coins. Besides, we would object Tamar Lomouri's opinion (she herself considered it dubitable) that Rusudan's regular coins were of diverse nominal values. What was the criterion for distinguishing these nominal values? Did the population make this distinction based on the weight of coins? In fact, this means that Rusudan's regular coins are in reality irregular. This is obviously far from being true. The regular coins issued by Rusudan are of regular (standard) shape and size as compared to the irregular coins.

The great majority of Rusudan's regular coins do not bear any trace of re-striking. Hence, Davit Kapanadze's argument seems ungrounded.

In our opinion, the *comparative irregularity* of Rusudan's regular coins was due to the following factors: on the one hand, these coins were produced in great haste because, in conditions of financial war with Jalal ad-Din, mass emission of regular coins and prohibition of irregular ones (in order to introduce new currency at the monetary market and replace the old one) were to be implemented *urgently and momentarily*; On the other hand, in Kutaisi (where Rusudan's royal court had found shelter), there could be no adequate *technological basis, perhaps a shortage of qualified professionals* (after 1227, the *regularity* of Rusudan's regular coins might have increased).

Thus, we agree with Maia Pataridze in that *comparative irregularity* of Rusudan's regular coins was due to the need for urgent actions in 1227. However, in our opinion, the *comparative irregularity* of Rusudan's regular coins reflects the situation of 1227; we argue the opinion that we should not make a retrograde projection of the *comparative irregularity* of Rusudan's regular coins to the year 1223, stating that in 1223 Rusudan initiated a reform but failed to implement it.

In conclusion: we cannot exclude the fact that Rusudan had the idea of the monetary reform immediately upon her enthronement. Yet, there are no sufficient data to prove this fact. It is more likely that Georgian authorities prohibited irregular coins only after Jalal ad-Din's occupation of Tbilisi and issuance of the conqueror's irregular coins. Certainly, Rusudan (her administration) might have had the idea of emission of regular coins prior to the conquest, but *prohibition* of irregular coins (which implied withdrawal of coins issued by all the previous monarchs from circulation) must have been caused by Jalal ad-Din's actions. It should also be noted that Georgia's neighbouring ShirvanShahs continued striking their irregular coins until 1260 (Rəcəbli 2015, 134-137). If not for Jalal ad-Din's invasion, Georgian monarchs might have done the same.

***

We have attempted to analyze the innovative opinions published recently regarding the nature of Georgian (and regional) irregular coins and Queen Rusudan's monetary reform.

The analysis has proved that there are no grounds for questioning the concept worked out by Yavgeny Pakhomov: payment using irregular coins was based on their net weight, whereas payment by regular coins was based on their number.

It is unlikely that the monetary reform implemented by Rusudan (her administration), (prohibition of irregular copper coins and issuance of exclusively regular ones) had been planned immediately upon Rusudan's enthronement in 1223. It is more probable that the implementation of this reform – in the form in which it was implemented – was conditioned by Jalal ad-Din's invasion in 1226. If Jalal ad-Din had not issued irregular copper coins, Georgian monarchs might have continued the emission of irregular coins and preserved the legal status of the irregular coins issued by their predecessors.

The fact that Rusudan's regular coins are metrologically far from strict standard (including the weight), was probably directly linked with the urgent necessity to issue coins in a short period of time (during the financial war with Jalal ad-Din) while the royal court escaped to Kutaisi.

## REFERENCES

Dundua Giorgi, Dundua Tedo. 2006. Georgian Numismatics, I Part. Tbilisi. "Artanuji".

Kapanadze Davit. 1969. Georgian Numismatics. Tbilisi: Tbilisi State University Publishing House.

Lomouri Tamar. 1938. „Money in Shota Rustaveli's Epoch". The Material Culture of Shota Rustaveli's Epoch (edited by Prof. Ivane Javakhishvili). Tbilisi. "Technology and Labour": 281-316.

Pataridze Maia. 2019. „Numismatics". Berikashvili Davit and Pataridze Maia, 2019. The Hoard of Samshvilde. Tbilisi. Tbilisi State University Publishing House: 50-312.

Paghava Irakli. 2020. „Which Giorgi Issued Giorgi's and Tamar's Coin?". Georgian Source Studies, XXII, 151-164.

Paghava Irakli. 2015. „Unification of Georgia and the Vectors of Numismatic Evolution (end of the X century - beginning of the XII century)". Middle East and Georgia, IX: 247-270, 344-345.

Paghava Irakli. 2012. „The Value of Copper in the Kingdom of Kartli-Kakheti at the End of the XVIII Century, Based on Historical Documents (On the Value of Contemporary Copper Coins)." Papers in History, volume 2: 220-241.

Paghava Irakli. 2011. „Coins of the Lord of Javakhs – Complex Analysis". Papers in History, volume 1: 291-343.

Paghava Irakli, Bliadze Davit, Chumburidze Pavle. 2020. „Irregular Coins of Successors of David IV the Builder with More than One Pair of Stamp Imprints." The Herald of the Georgian Numismatic Society, №1: 24-34.

Patsia Davit, Paghava Irakli. 2009. The Georgian Coins of Jalal ad-Din Mankburni. Tbilisi: 'Erovnuli Mtserloba".

Jalaghania Irina. 1976. Georgia's Monetary Treasures. I. Tbilisi. "Metsniereba".

Paghava Irakli. 2012. "The First Arabic Coinage of Georgian Monarchs: Rediscovering the Specie of Davit IV the Builder (1089-1125), King of Kings and Sword of Messiah". 3rd Assemani Symposium on Islamic Coins, Rome, 23-24 September 2011, Proceedings. Eds. Bruno Callegher and Arianna D'Ottone. Trieste: 220-261.

Paghava Irakli. 2017. "The Profitability of Minting Civic Copper Coins and the Identification of Emerging Nationalism as Seen Through Coin Imagery. A Case Study of the East-Georgian Kingdom Kartl-Kakheti". Iranian Numismatic Studies. A Volume in Honor of Stephen Album. Editor: Mostafa Fahfoury: 243-255.

Paghava Irakli, Turkia Severiane, Zlobin Gennadiy. 2011. "A New Coin Type of Dimitri I, King of Georgia: Addendum" Journal of Oriental Numismatic Society, #207: 13-14.

Rəcəbli Əli. 2015. Şirvanşahlar dövlətində sikkə zərbi (VIII-XVI yüzillər). Монетная чеканка в Государстве ширваншахов (VIII-XVI веков.). Coinage in the State of Shirvanshahs (8th-16th Centuries). Bakı: Elm və təhsil.

Turkia Severiane, Paghava Irakli. 2009. “A New Coin Type of Dimitri I, King of Georgia”. Journal of Oriental Numismatic Society, #200: 9-12.

Akopyan Alexander, Goncharov Yevgeny. 2019. “Two Unique Caucasian Coins of the XIII Century with Several Stamp Imprints.” Oriantalistica, 2(2): 288-298.

Bazilevich Konstantin. 1936. The Monetary Reform of Alexey Mikhailovich and the Rebel in Moscow in 1662. Moscow-Leningrad: Publishing House of the USSR Academy of Sciences.

Jalaghania Irina. 1979. A Foreign Coin Circulated in Georgia in the V-XIII Centuries. Tbilisi. “Metsniereba”.

Kapanadze Davit. 1961. Coins Issued at the Beginning of XI Century in Tbilisi by Caliph’s Viceroy ‘Ali Ibn Jafar. Oriental Epigraphy, XIV: 71-78.

Kapanadze Davit. 1970. “Comments”. Pakhomov Yevgeny. Georgian Coins. Tbilisi. “Metsniereba”: 277-350.

Melnikova Alla. 1989. Russian Coins from Ivan the Cruel to Peter the Great. Moscow: “Finance and Statistics”.

Paghava Irakli. 2018. The Numismatic Past of Dagestan and Georgia. Emissions of the Georgian Kingdom Circulated in the Caucasus. Coinage in Avaria, Coinage in Kubachi. Tbilisi: “Artanuji”.

Pakhomov Yevgeny. 1926. Coinages of Azerbaijan and South Caucasus. Research Papers in Azerbaijan Studies, issue 3. Baku: Published by the Society of Research and Studies of Azerbaijan.

Pakhomov Yevgeny. 1970. Georgian Coins. Tbilisi: “Metsniereba”.

Pakhomov Yevgeny. 1969. “The Technology of Emission of Copper Coins in South Caucasus at the End of the XII and Beginning of the XIII Centuries”. Soviet Archeology, 3: 259-261.

Uzdenikov Vasily. 1994. “The History of Coinage and Circulation of Copper Coins of Five Kopeks in 1723-1730”. Uzdenikov Vasily. Russian Coins from the XVIII Century to the Beginning of the XX Century. Essays in Numismatics. Edited by Doctor of Historical Sciences A.S. Melnikova). Moscow: “Mir Otechestva”: 20-48.

Fomin Aleksey. 1984. Circulation of Pieces of Kufic Coins in Eastern Europe in the Beginning of the X and XI Centuries. Numismatics and Epigraphy, volume XIV: 133-138.

| MONARCH | IRREGULAR COINS | REGULAR COINS |
|---|---|---|
| David IV the Builder | + | |
| Dimitri I | + (5 types) | |
| David V | | |
| Giorgi III | + | + (2 types) |
| Tamar | + together with David Soslan | + (2 types, out of which - 1 with Giorgi) |
| Giorgi IV Lasha | + under the title of Lord of Javakhs | + |
| Rusudan | + | Stamped the coins issued by her predecessors |

Table 1. The 12th-13th Century. Irregular and regular coins emitted by Georgian Monarchs

Fig. 1

Fig. 2

Fig. 3

Fig. 4

Fig. 5