

## NEW POSSIBLE APPROACH ON THE SIGNIFICANCE OF “ARROWHEAD”-SHAPED MONETARY SIGNS ESPECIALLY CAST FOR TRADE PURPOSES

Gabriel Mircea Talmatchi\*

**Abstract:** *The subject we selected for this paper answers some personal concerns to which we have already dedicated a few years of research. One of the main questions we put is: what connections are between the shape of these monetary signs and everyday realities in the 6<sup>th</sup>-5<sup>th</sup> century B.C.? Also, if they were commercial items, what was their significance, as they don't fully express the currency functions? Were they made in "arrowhead" shape without ultimately symbolizing anything of the purpose for which they were created? Is there a more elaborate answer in this regard or should we find a very simple explanation, as we consider we should identify for that period? In fact, arrowheads-monetary signs represent measurable symbols of some economic and trade realities, used under certain regionally established "standards". They were designated as counterparties for goods, like grain and fish. These seem to be the most sought after commodities of the Greek population and the monetary signs could also be the representation of grains (as in the classic pieces case), or of marine fish, respectively. Our opinion is that the interpretation was unequivocal (more precisely their significance and purpose) for the 6<sup>th</sup>-5<sup>th</sup> centuries B.C. population, understood by all (and we are not referring to the classic battle arrowheads, to a probable military connection).*

*We consider, as a hypothesis, that we have to establish a link with the economic elements of everyday life, with the economic and commercial necessity in the early relations established between the Greeks and the natives (namely the Getae). In our opinion, when casting these monetary signs, certain local trade elements were taken into consideration; thus they seem to not symbolically render a battle weapon (the military arrowhead), but the very commodity for whose trading they were created: grains of wheat or barley, or fish products, etc.*

*We were inspired in these new considerations by the study of monetary iconography specific to the Greek world. Besides the characteristic elements of the local or general Pantheon (gods and their attributes), the Greek centres and the poleis also imprinted the main sources of income – such as fish, cereals (ears or grains), pottery, etc. – on the obverse and reverse of their monetary types. There are numerous examples to this effect, valid in the entire Greek world, especially in the colonies.*

*The specimen we will refer to were cast from the first half of the 5<sup>th</sup> century B.C. However, they couldn't have been chronologically simultaneous, as they were distinguished by the financial and monetary processes and phenomena, by the stages of execution of the measurable products, by the transition from a half-standardized symbol to a generally accepted symbol in the known "civilized" world, characteristic to the respective periods. The most significant examples that support our endeavour to establish probable connections between the analyzed monetary signs (ad-hoc considered "arrowheads") and the commodities traded on the north-western and western coast of the Black Sea as shapes and symbols of cereals, seem to come from the mints of Leontinoi (Syracuse) and Neandreaia (Aeolis). The 5<sup>th</sup> century B.C. is rather rich in representations of the cereal "grains" (wheat and barley) in the centres*

---

\* Muzeul de Istorie Națională și Arheologie, Piața Ovidiu, nr. 12, 900745, Constanța, Romania; [gtalmatchi@yahoo.com](mailto:gtalmatchi@yahoo.com)

whose economy relied on agriculture and fishing. These mints are at great distance from the area we investigate, but their respective iconography reveals the reality of the rendering and symbolization techniques in the Greek world, as well as all the aspects regarding metrology, epigraphy, countermarking, etc. that usually manifested on a continental or colonial scale in various chronological periods (by circulation of goods, people, trends – including religious, architectural, artistic trends, etc.).

We were surprised by the existing similarities between the representation of these grains and the known "arrowhead" shapes especially cast for trade purposes. By shape, they could represent cereal grains (wheat, barley, etc.). The chronological difference between the execution of the coins (and the application of iconographic themes) and the end of casting the respective monetary signs at the Black Sea is rather small. In the absence of experiments – impossible to reproduce in historic consecution – specialists cannot rely on solid foundations. Several of our interpretations can be analyzed, confirmed or refuted by future investigations. We consider them working hypotheses.

**Rezumat:** Alegerea temei prezentului material răspunde unor preocupări personale care deja ne-au acoperit câțiva ani din cercetarea de profil. Una din întrebările principale pe care ne-am pus-o este ce legătură există între forma acestor semne monetare și realitatea cotidiană din sec. VI-V a.Chr. De asemenea, dacă erau elemente comerciale, ce semnificau? Pentru că ele nu exprimă în totalitate funcțiile monedei. Au fost realizate sub forma unor „vârfuri de săgeți” fără a simboliza în ultimă instanță nimic din scopul pentru care au fost create? Există oare un răspuns mai complicat în acest sens sau ar trebui să găsim o explicație extrem de simplă, așa cum, considerăm noi, ar fi trebuit să identificăm pentru acea perioadă? Vârfurile de săgeți-semne monetare reprezintă, în fapt, simboluri măsurabile ale unor relații economice și comerciale, pentru utilizarea lor în anumite „standarde” stabilite zonal. Ele erau destinate stabilirii unor contrapartide pentru mărfuri, așa cum erau la acel moment produsele cerealiere și piscicole. Cele două categorii par a fi cele mai căutate mărfuri de populația de origine greacă, iar aceste semne monetare ar putea să dețină, după această primară punte de legătură stabilită prin intermediul vârfurilor de săgeți fusiforme, și alte etape (în întreaga parte secundă a sec. VI a.Chr.), exprimând forma bobului de cereale (ca în cazul celor clasice), respectiv reprezentarea peștilor marini. Opinem că reprezentarea lor trebuie să fie extrem de clară (mai precis semnificația și destinația lor) pentru populația sec. VI-V a.Chr., pe înțelesul tuturor (și nu ne referim la vârfurile de săgeți clasice de luptă, la o probabilă conexiune, din punct de vedere militar, cu lumea combatantă). Mai degrabă credem, la stadiu de ipoteză, că trebuie stabilită o legătură cu elementele economice ce țineau de viața de fiecare zi, de necesitatea economico-comercială existentă în raporturile de început stabilite între greci și autohtoni (în speță populația getică). Din punctul nostru de vedere, turnarea acestor semne monetare a trebuit să țină seama de atragerea sub o anumită formă a elementelor locale la schimb, la comerț, și această cale, cea mai simplă, pare a reda simbolic (mai mult sau mai puțin) nu o armă de luptă (vârful de săgeată militar), ci însăși marfa pentru tranzacționarea cărora au fost create (cereale-spice de grâu sau boabe de grâu și orz, produse piscicole-pești etc.). Aceste noi considerații ne-au fost sugerate de studiul iconografiei monetare specifice lumii grecești. Centrele lumii grecești, ca și polis-urile de mai mică anvergură, pe lângă elementele specifice ale Pantheon-ului local sau general (zei și atribute), au imprimat pe aversurile și reversurile tipurilor monetare și sursele principale de venit, așa cum am putea enumera peștii, cerealele (spice sau boabe), ceramica etc. Exemplele în acest sens sunt nenumărate, valabile în întreaga lume greacă, continentală și mai ales colonială. Exemplarele la care vom face trimitere au fost bătute începând cu prima parte a sec. V a.Chr., adică foarte curând după finalul procesului de turnare a unor astfel de exemplare. Dar ele nici nu puteau fi, pentru sec. al VI-lea a.Chr., sincrone cronologic, întrucât erau diferențiate de însăși procesele și fenomenele financiare și monetare, de etapele de realizare a produselor

măsurabile, de trecerea de la un simbol semi-standardizat de schimb la unul general acceptat în lumea „civilizată” cunoscută, caracteristică epocilor respective.

Cele mai semnificative exemple, ce vin în sprijinul demersului nostru, de stabilire a unor probabile conexiuni între semnele monetare analizate (considerate ad-hoc ca „vârfuri de săgeți”) și mărfurile tranzacționate pe coastele de nord-vest și vest ale Pontului Euxin ca forme și simboluri cerealiere, par a fi oferite de monetările din Leontinoi (Syracuză) și Neandrea (Aeolis). Sec. al V-lea a.Chr. este relativ bogat în reprezentări ale respectivelor „boabe” de cereale (grâu și orz), în cazul unor centre a căror economie se baza pe activitatea agricolă și, în parte, piscicolă. Desigur că aceste monetări se află la o mare depărtare de arealul nostru cercetat, dar iconografiile lor trădează în ultimă instanță realități ale tehnicii de redare și simbolizare ale lumii grecești, ca și toate celelalte aspecte ce țin de metrologie, epigrafie, contramarcare etc. care s-au manifestat la scară general continentală sau colonială pe diferite paliere cronologice (prin circulația produselor, a oamenilor, a curentelor - inclusiv religioase, arhitecturale, artistice etc.).

Ne-a surprins, din punctul nostru de vedere, similitudinea existentă dintre reprezentările acestor boabe și formele cunoscute pentru „vârfurile de săgeți” special turnate cu scop comercial. Cu alte cuvinte, ele ar putea semnifica, ca formă, boabele de cereale, fie că este vorba de grâu, orz etc. Diferențele cronologice dintre realizarea monedelor (și aplicarea temelor iconografice) și finalul turnării în Pont a respectivelor semne monetare sunt destul de mici. În absența experimentului-imposibil de reprodus în succesiunea istorică – specialistul nu poate fonda pe temelii solide „edificiul” său. Multe dintre interpretările noastre avansate pot fi analizate, confirmate sau infirmate de cercetările viitoare. Noi le considerăm a fi la stadiul de ipoteze de lucru.

**Key words:** Dobrudja, Black Sea, monetary signs, trade, pre-Roman period.

**Cuvinte cheie:** Dobrogea, Marea Neagră, semne monetare, schimburi comerciale, perioadă pre-romană.

The much desired complete understanding of the historical truth is a goal that historiography will never be able to fully achieve. This findings arising from the object of knowledge can be generalized for all scientific research. It's also the reason why the existence of a multitude of random elements can raise impassable barriers in front of an unequivocal argumentation intended to build the proper construction of the "historical truth". The subject we selected for this paper answers some personal concerns to which we have already dedicated several years of research. One of the main questions we put is: what connections are there between the shape of these monetary signs and everyday realities in the 6<sup>th</sup>-5<sup>th</sup> century B.C.? Also, if they were commercial items, what was their significance, because they don't fully express the functions of currency? Were they made in "arrowhead" shape (Fig. 1, Fig. 2) without ultimately symbolizing anything of the purpose for which they were created? Why is it not the same case for the fish or the small dolphins cast in the north-western Black Sea area (Fig. 3)? Is there a more elaborate answer in this regard or should we find a very simple explanation, as we consider we should identify for that period? Hasn't the research complicated, rather than simplified the search for a pertinent answer?

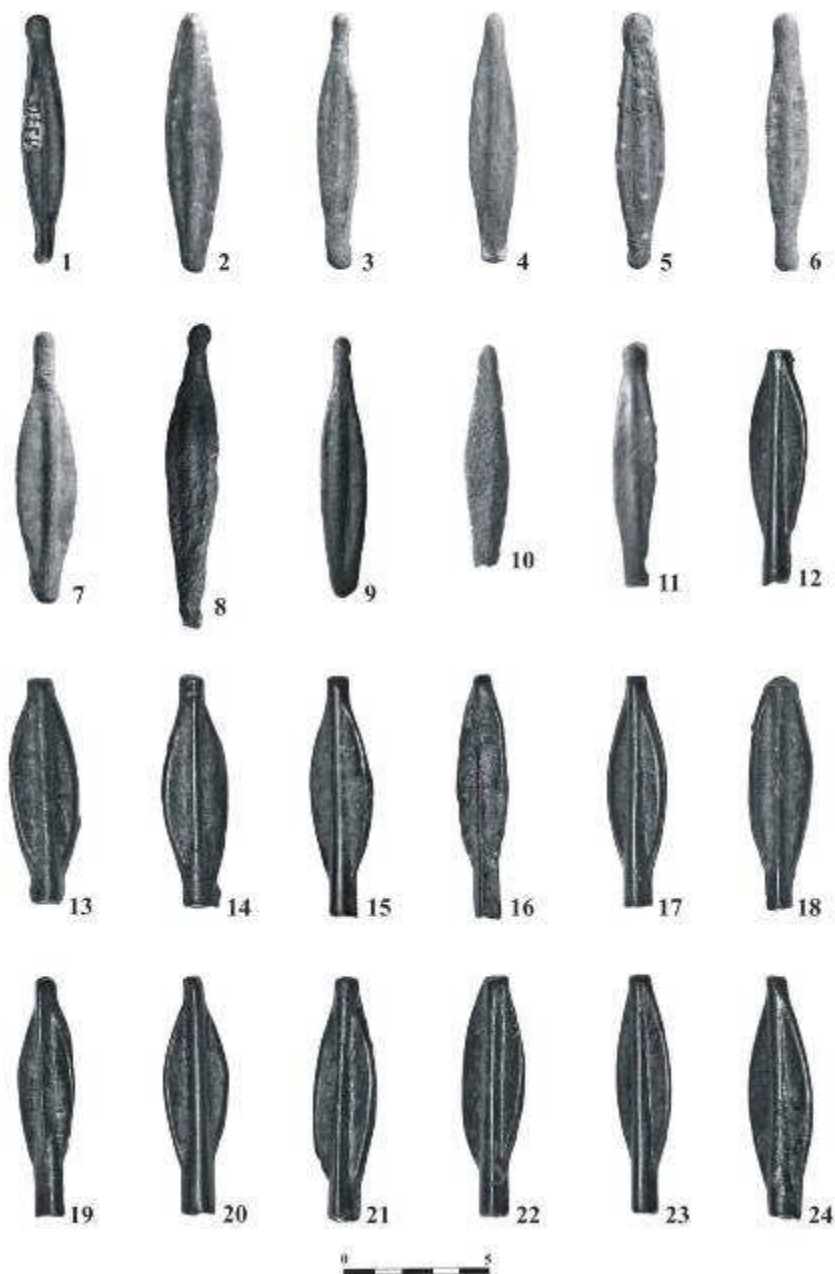


Figure 1. Arrowheads-monetary signs from the first category: earlier pieces (1-11) and classic pieces (12-24).

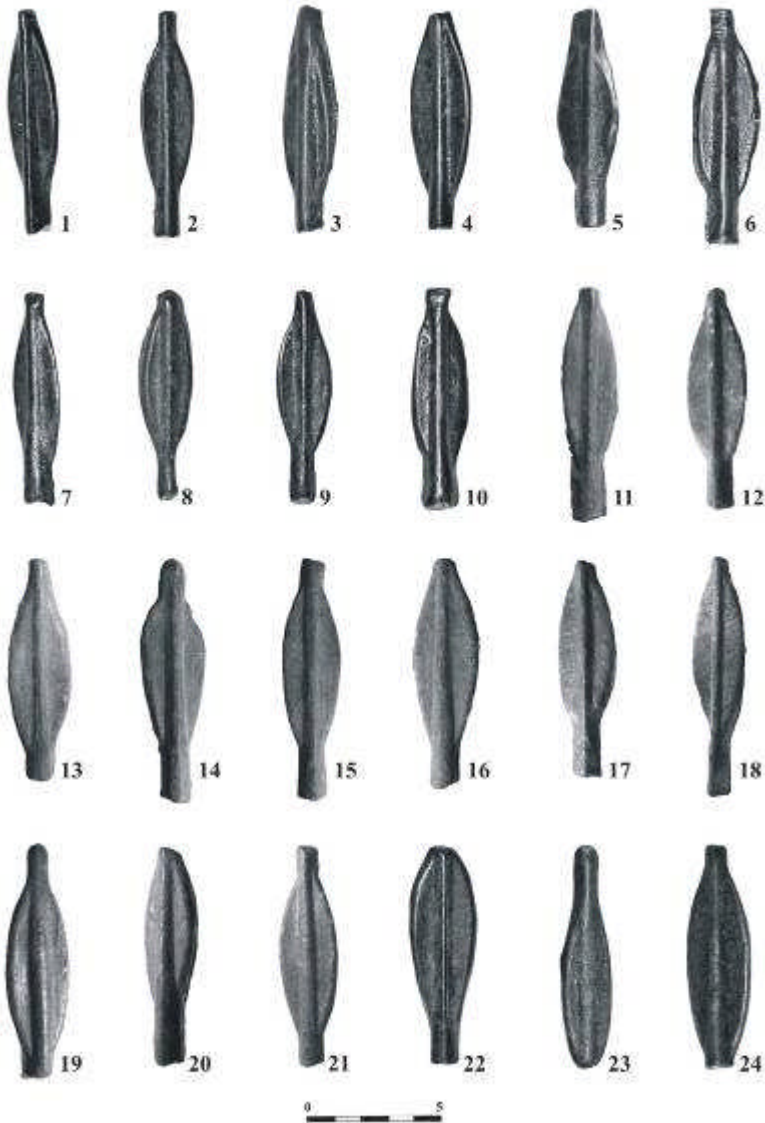


Figure 2. Arrowheads-monetary signs from the first category: classic pieces (1-24).

Not long ago, we finalized a synthesis paper (we hope it is more relevant but not exhaustive) about this important numismatic documents (namely monetary signs) – casting light on the understanding of the currency-coin equation and, at the same

time, responding to an acute necessity in the Romanian specialty literature<sup>1</sup>. On this occasion, *inter alia*, we found several specific features of the analyzed phenomenon, including some directly related to the current approach. Thus, the occurrence of barter (goods in exchange for goods) was considered the first elementary step of actual trade<sup>2</sup>. In other words, barter has developed into the first estimation of value. Generally, the practice of this exchange process was considered uncomfortable, sometimes unfair, involving the parties' agreement<sup>3</sup>. The ascending trend of the economy and exchanges between communities in the west and northwest of Pontus Euxinus area, around the middle of the 1<sup>st</sup> century B.C., led to the gradual replacement of barter with more advanced trade methods, where the above-mentioned units were gradually replaced by metal instruments measuring the value of products subject to the exchange. This was a standard with more or less distinct value, intended for transactions, taking the shape of bronze arrowheads (in a single known case the arrowheads are made of lead)<sup>4</sup> with monetary value<sup>5</sup>. The phenomenon of making monetary signs with economic value included, at a certain time, in a particular context, most of the Milesian colonies in the north and northwest of the Black Sea. It represents a positive reaction to a real necessity of the economic market and the trade conducted in the local geographic or immediately adjacent milieu. They are rather frequent in finds (mainly in hoards, but also isolated), were made in large quantities and "spread" especially in the colonial and indigenous areas of cultural, economic and commercial interference. These monetary signs represented one of the many ways to ensure the participation of the local element, the perpetuation of economic relations and social collaboration. They constitute another side of the Greek civilization, destined to make the Getae receptive to borrowing some Greek models in everyday life. Monetary signs appear within the Ionian colonial world, and trade in the area is evidence in this regard for the archaic period. They benefit from the existence of "commercial routes between the Black Sea and the Ionian Sea"<sup>6</sup> that were constantly used. The issue of monetary signs is particularly complex and many aspects are still waiting to be resolved. In fact, we do not intend to review all of the problems stemming from registration and scrutiny of all finds. But we will focus on those directly related to the subject.

---

<sup>1</sup> Talmațchi 2010.

<sup>2</sup> Nestor 1935-1942, 141; Mihăilescu-Bîrliba 1990, 34.

<sup>3</sup> Sédillot 1989, 29.

<sup>4</sup> Zaginajlo 1982, 26.

<sup>5</sup> Sorda 1980, 185-206.

<sup>6</sup> Avram, Poenaru Bordea 2001, 590.

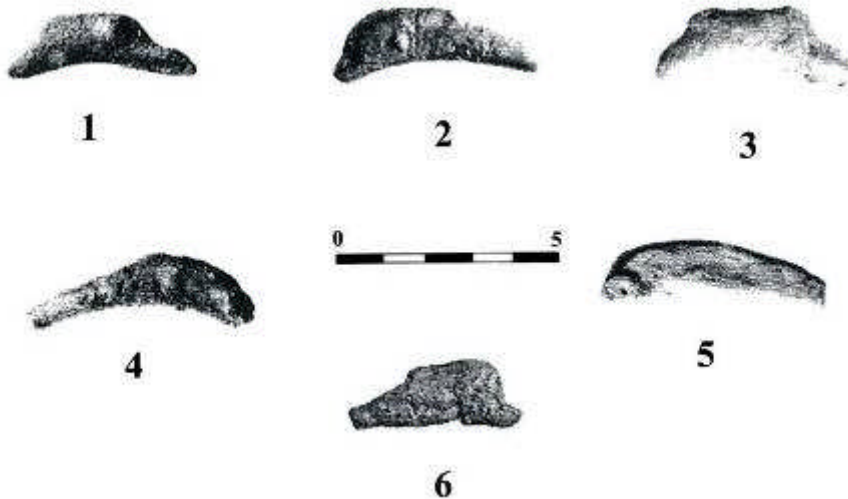


Figure 3. Olbian dolphins discovered in Dobrudja: the warehouse from Zebil (1-5) and an isolated silver find from Târgușor (6).

More or less pronounced differences in the monetary signs' shape were attributed to religious, economic and political differences, present in each city individually<sup>7</sup>. In time, several possible roles were given to arrowheads-monetary signs: economic<sup>8</sup>, magic-religious<sup>9</sup> and last, but not least, if one accepts the relational hypothesis<sup>10</sup>, *status symbol* value. They may represent the form of prestigious gifts offered by the Milesians to Thracian noblemen for matrimonial and alliance purposes (are associated in the same group of gifts that also includes parade weapons, cosmetics and textiles, drinking vessels etc.)<sup>11</sup>. The arrowhead shape could also be linked to Apollo *Toxophoros*<sup>12</sup> cult, the bow and arrows being two of his attributes<sup>13</sup>. On the other hand, an association was made between this shape and Thracian-Getae<sup>14</sup> and Scythian<sup>15</sup> symbolism. In a single case, irrelevant in

<sup>7</sup> Topalov 2007, 730.

<sup>8</sup> Preda, Nubar 1978, 19; Scorpan 1980, 29; Mihăilescu-Bîrliba 1990, 38; Preda 1998, 30; Domăneanțu, Poenaru Bordea 1985, 58; Topalov 2007, 723.

<sup>9</sup> Anochin 1986, 78, 84; Mihăilescu-Bîrliba 1990, 38–39.

<sup>10</sup> Mănucu-Adameșteanu 1992, 61; Mănucu-Adameșteanu 1996, 104.159

<sup>11</sup> Avram 1989, 75–76; Avram 1996, 248–249.

<sup>12</sup> Avram 1989, 75.

<sup>13</sup> Belfiore 2003, 63.

<sup>14</sup> Avram 1989, 76.

<sup>15</sup> Aricescu 1975, 23.

our opinion, they were considered – without taking into account many other archaeological data and information – "semi-manufactured functional arrowheads"<sup>16</sup>. The standard role in exchange is probably given by their shape<sup>17</sup>.

Arrowheads-monetary signs occur both isolated and in hoards, especially in rural and under colonial influence areas<sup>18</sup>. Isolated discoveries made outside the rural areas of the colonies could indicate the presence of local communities, located on Greek merchants' routes, seeking some new and profitable lines of exchange or some communities with developed economies. The isolated finds of arrowheads-monetary signs do not confirm a common practice. However, such finds exist, but they shouldn't be exclusively considered part of incomplete hoards<sup>19</sup>. Also, monetary signs were found in places that generally correspond to known Getae centres. The presence of either arrowheads-monetary signs or small Olbian dolphins in isolated finds or hoards points to economic and trade links between local communities and Greek merchants from the coast, in their archaic stage of manifestation<sup>20</sup>. Later, in the second quarter of the 5<sup>th</sup> century B.C., the interest manifested in the existence of an individualized and quasi-standardized circulating material led the same analyzed colonies to strike coins. In the Classical, Hellenistic, and early Roman period these colonies struck in mints various monetary types. This is part of a general Greek and Roman phenomenon, created beyond the close limits of the investigated area. Striking coins met economic and commercial interests and propaganda of each colony on its territory and beyond its commercial limits (from the archaic<sup>21</sup> period up to the Roman period, inclusive<sup>22</sup>).

In fact, arrowheads-monetary signs represent measurable symbols of economic and commercial realities, destined to be used under certain regionally established "standards". They were designed to establish counterparties for goods, like grain and fish products. The two groups appear to be the most sought after commodities by the Greek population and these monetary signs could have gone through several stages (throughout the second half of the 6<sup>th</sup> century B.C.), as the shape of ears of grain (the classic pieces) or marine fish, respectively. Our opinion is that the representation must have been unequivocal (more precisely, their significance and purpose) for the 6<sup>th</sup>-5<sup>th</sup> centuries B.C. population (we are not referring to the classic battle arrowheads, to a probable military connection.). As a

---

<sup>16</sup> Wells 1978, 26.

<sup>17</sup> Mănuclu-Adameșteanu 1984, 17-24.

<sup>18</sup> Preda, Nubar 1978, 18-19; Poenaru Bordea 2001, 9-10.

<sup>19</sup> Talmațchi 2008, 8-9.

<sup>20</sup> Talmațchi 2009, 600.

<sup>21</sup> Iliescu 1970, 87-98.

<sup>22</sup> Stoian 1987, 67-68.



hypothesis, we rather consider that we have to establish a connection with the economic elements of everyday life, with a trade necessity in the early relations between the Greeks and the natives (namely Getae). In our opinion, the casting of these monetary signs took into consideration certain local trade elements; thus they seem to symbolically render not a battle weapon (the military arrowhead), but the very commodity for whose trading they were created: grains of wheat or barley, or fish products, etc. It is possible that at some point these monetary signs have ensured the "monetary" needs in cities<sup>23</sup>.

We were inspired in these new considerations by the study of monetary iconography specific to the Greek world<sup>24</sup>. Besides the specific elements of the local or general Pantheon (gods and their attributes), the Greek centres and the poleis also imprinted the main sources of income – such as fish, cereals (ears of grains), pottery, etc. – on the obverse and reverse of the monetary types. There are numerous examples to this effect, valid in the entire Greek world, especially in the colonies. The artefacts we will refer to were cast from the first half of the 5<sup>th</sup> century B.C. However, they couldn't have been chronologically simultaneous, as they were distinguished by the financial and monetary processes and phenomena, by the stages of execution of the measurable products, by the transition from a half-standardized symbol to a generally accepted symbol in the known "civilized" world, characteristic to the respective period. Monetary signs have some of the features of coins (unlike pre-monetary signs), but they are not coins.

The most significant examples that support our endeavour to establish probable connections between the analyzed monetary signs (ad-hoc considered "arrowheads") and the commodities traded on the north-western and western coast of the Black Sea seem to come from the mints of Leontinoi (Syracuse) and Neandreaia (Aeolis). There are rather numerous representations of these grains (wheat and barley) in the 5<sup>th</sup> century B.C., as the economy of some centres relied on agriculture and fishing. These mints are at great distance from the area we investigate, but their respective iconography reveals the reality of the rendering and symbolization techniques in the Greek world, as well as all the aspects regarding metrology, epigraphy, countermarking, etc. that usually manifested on a continental or colonial scale in various chronological periods (by circulation of goods, people, trends – including religious, architectural, artistic trends, etc.).

---

<sup>23</sup> Also pointed out by Poenaru Bordea 2001, 9.

<sup>24</sup> We hereby thank our colleague Costel Chiriac for bibliographic suggestions he offered.

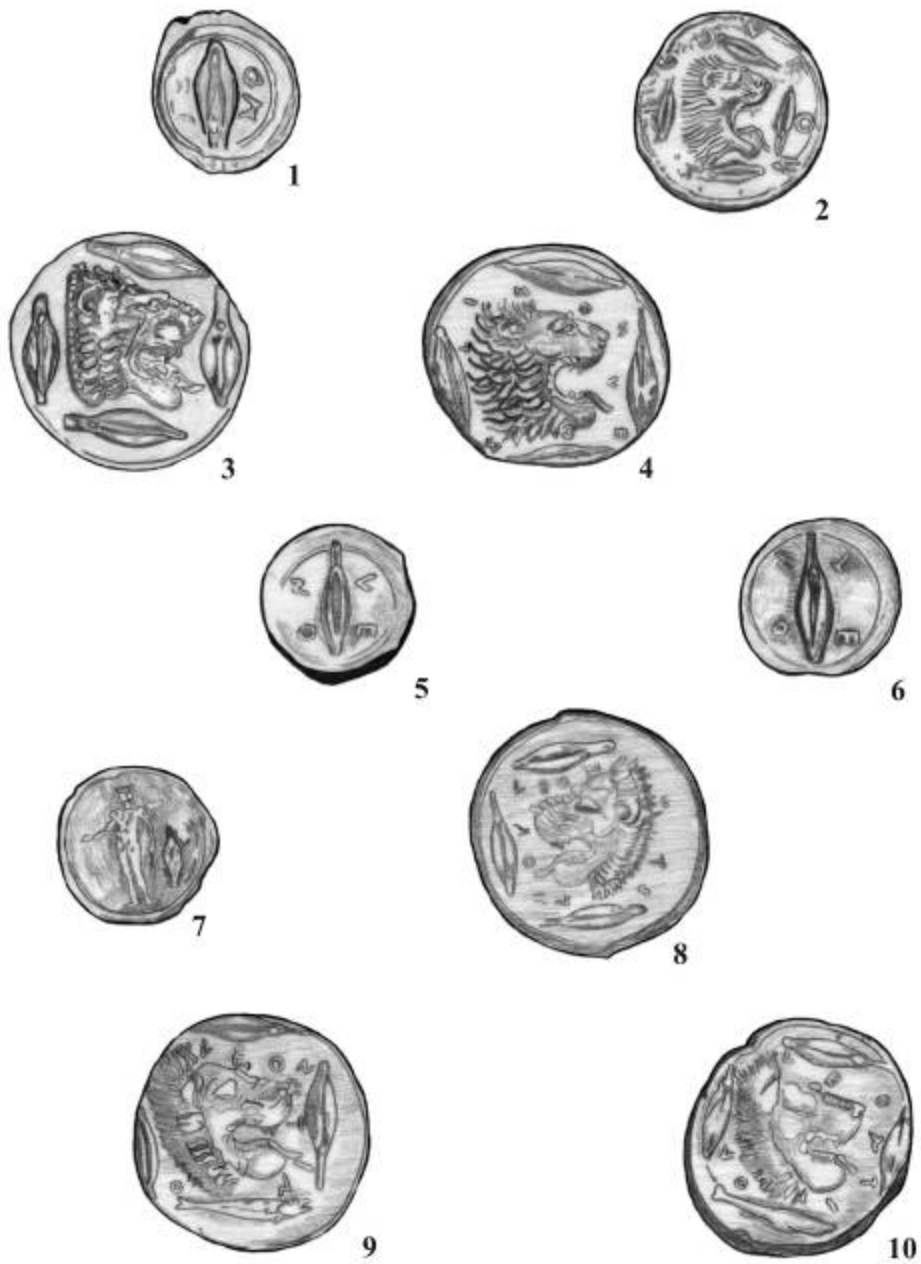


Figure 4. Monetary issues from Leontinoi with iconographic grain symbols.

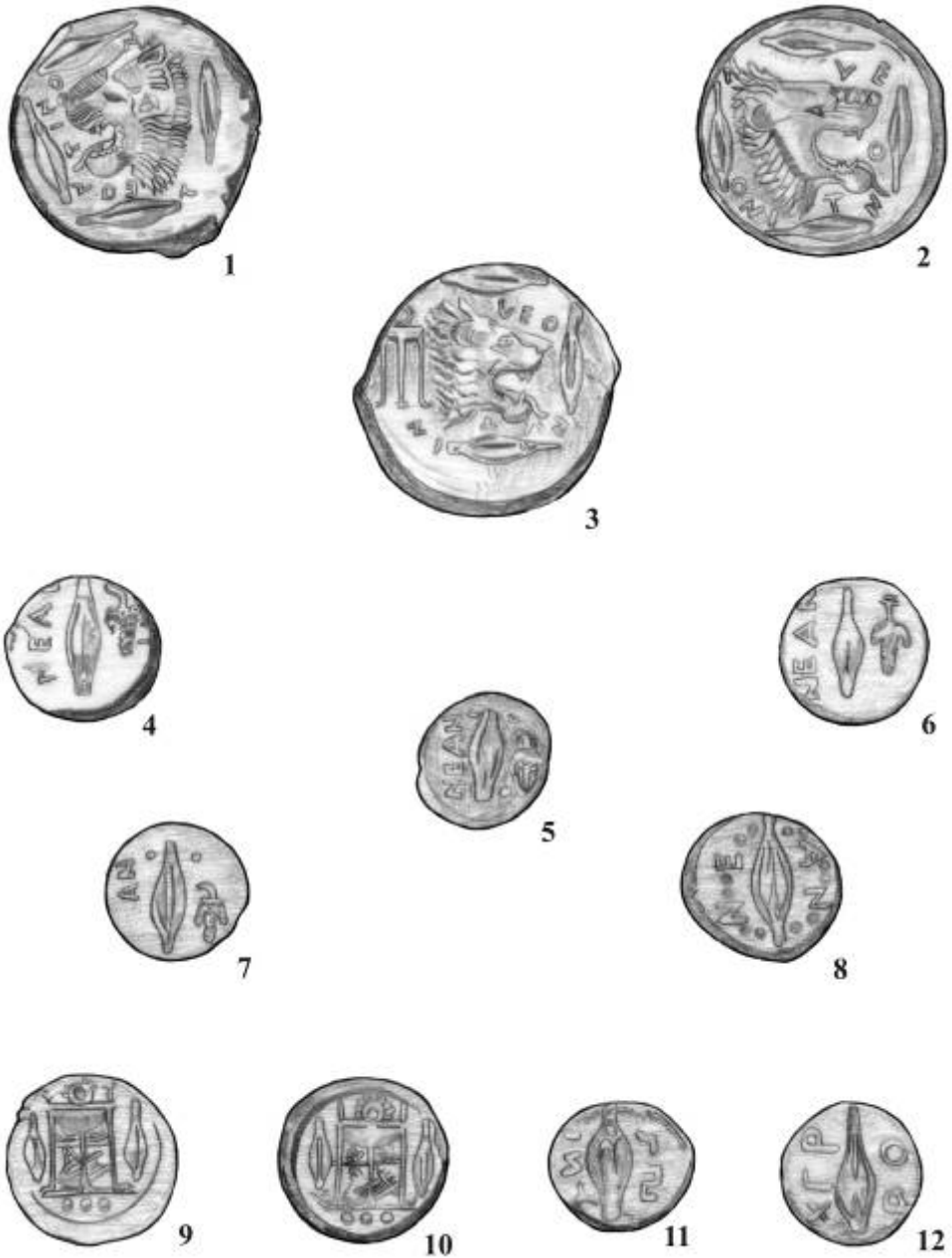


Figure 5. Monetary issues from Leontinoi and Neandreaia with iconographic grain symbols.

We start the enumeration with the well-known silver series specimen (tetradrachmas and various divisions) issued at Leontinoi in 500-466, 476-468, 476-466, 466-460, 455-433, 450-440, but also those from 440-430 and 425-420 B.C., respectively. They concern several monetary types, such as Lion/wheat grain (Fig. 4, 1)<sup>25</sup>, nude Horseman (Fig. 4, 2), Quadriga (Fig. 4, 3-4), Nymph (Fig. 4, 5, Fig. 5, 2) Lion/entire Apollo (Fig. 4, 7) and Apollo (with variants on reverse) (Fig. 4/ 8-10, Fig. 5/ 1, 3). The first renders a lion head viewed from the front on the obverse and two horizontal barley grains – almost touching – on the reverse<sup>26</sup>. The monetary type with the nude horseman oriented to the right on the obverse has four wheat grains around a lion head, oriented to the right, on the reverse<sup>27</sup>. Next is the type rendering a quadriga in motion oriented to the right (flying Nike appears in the upper part), on the obverse, and four wheat grains around a lion head oriented to the left, on the reverse<sup>28</sup>. We continue with the monetary type showing the head with diadem of a Nymph (in other cases the head of Apollo) on the obverse and a wheat grain in the central part of the reverse<sup>29</sup>. On another monetary series, a lion head oriented to the right is on the obverse and, on the reverse, the nude god Apollo, standing, with a wheat grain on the right<sup>30</sup>. Also, another monetary type renders on the obverse the head of Apollo oriented to right or left, with laurels, and on the reverse, wheat grains and fish near a lion head oriented to the left<sup>31</sup>. We also mention a monetary type with Apollo's head oriented to the right or left, with laurels, on the obverse, and four grains around a lion head oriented to the right on the reverse<sup>32</sup>. In a variant of this last iconographic model,

---

<sup>25</sup> The coins are not shown in Figures 4-6 the size of 1:1.

<sup>26</sup> SNG Cop 342; SNG ANS 213-216.

<sup>27</sup> [www.historicalcoins.com](http://www.historicalcoins.com); SNG ANS 207.

<sup>28</sup> Classical Numismatic Group, Auction 93, Auction date: 22 may 2013, lot number 54; [www.Mithrasancientcoins.com](http://www.Mithrasancientcoins.com), position 3367; SNG ANS 198-200.

<sup>29</sup> Classical Numismatic Group, Auction 294, Auction date: 16 January 2013, lot number 48, 50; Numismatica Ars Classica, Auction 72, Auction date: 16 May 2013, lot number 318; Roma Numismatics Ltd, Auction May 2013, Auction date: 21 May 2013, lot number 106; SNG ANS 261-263.

<sup>30</sup> [www.omnicoin.com](http://www.omnicoin.com), Worl Coin Community.

<sup>31</sup> Heritage World Coin Auctions, CIGF Signature Sale 3024, Auction date: 18 april 2013, lot number 24.574; SNG ANS 253.

<sup>32</sup> Noble Numismatics Pty Ltd., Auction 99, Auction date: 17 april 2012, lot number 3311; iNumis, Mail Bid Sale 20, Auction date: 12 March 2013, lot number 13; Classical Numismatic Group, Auction 72, Auction date: 16 may 2013, lot number 317; ArtCoins Roma, Auction 7, Auction date: 20 May 2013, lot number 144; SNG ANS 222-231.

on the reverse, one of the wheat grains is replaced with a tripod<sup>33</sup>. We consider that the frequent use of grains in the local iconography needs no further explanations.

We were surprised by the existing similarity between the representation of these grains and the known "arrowhead" shapes especially cast for trade purposes. By shape, they could represent cereal grains (wheat, barley, etc.).

The chronological difference between the execution of the coins (and the application of iconographic themes) and the end of casting the respective monetary signs at the Black Sea is rather small. The respective model was also used in the 4<sup>th</sup> century B.C. (around 350 B.C.) on a rich bronze series issued at Aeolis (Neandria), where a "cereal grain", near a bunch of grapes is rendered very suggestively on the obverse<sup>34</sup> (Fig. 5/4-8). Also, another issue from Leontinoi, using the same metal, cast at the limit between 5<sup>th</sup>-6<sup>th</sup> century B.C., renders Apollo's head, with laurels, oriented to the right (with an olive leaf behind the head), on the obverse, and a tripod in the central area, framed by two wheat grains, with three small pronounced circles in exergue, on the reverse<sup>35</sup> (Fig. 5/ 9-10). We continue with an issue from Ionia (Magnesia ad Maendrum) from around 400 B.C. (first issues of this type), with Apollo's head, with laurels, oriented to the right and wheat grains in the middle<sup>36</sup> (Fig. 5/ 11). We also mention a silver issue that starts around 386 B.C. in Thracian Chersonessos, with a lion head oriented to the left on the obverse, and a grain of wheat in the centre of the reverse<sup>37</sup> (Fig. 5/ 12).

Perhaps the last information, resulting from the analysis of specimen dating from the 4<sup>th</sup> century, may already be considered too remote from the casting and penetration period of the Black Sea monetary signs (despite the obvious similarities), but the symbol of the wheat grains seems to endure sufficiently long to decorate the obverse of monetary issues, being used to render the rich cereal crops of wheat or barley (Fig. 6, 1-2).

What information do we have about trade with cereals and fish products in the studied area? Returning to the western Black Sea area, for instance, grains, animal products, honey, fish and slaves were taken from Histria in exchange for quality pottery, wines, oils and other products, specific to Greek craftsmanship (weapons, jewellery etc.)<sup>38</sup>.

---

<sup>33</sup> Numismatica Ars Classica, Auction 72, Auction date: 16 May 2013, lot number 316.

<sup>34</sup> [www.romae.aeternae.numismatic.com](http://www.romae.aeternae.numismatic.com); SNG Cop 449; [www.cac.chimaira-antiqves-coins.com](http://www.cac.chimaira-antiqves-coins.com); [www.forumancientcoins.com](http://www.forumancientcoins.com).

<sup>35</sup> ArtCoins Roma, Auction 7, Auction date: 20 May 2013, lot number 145; SNG Cop 360; SNG ANS 270.

<sup>36</sup> [www.coinarchive.com](http://www.coinarchive.com); SNG Kayhan 395-6.

<sup>37</sup> [www.coinarchive.com](http://www.coinarchive.com); SNG Cop 844-6.

<sup>38</sup> Pippidi, Berciu 1965, 164-165; Danov 1990, 152.

These were brought through the existing relations with Millet and other centres from Asian or inland Greece, with Corinth and, of course, Athens<sup>39</sup>. This type of trade between the “barbarian” world and the Greek centres or big cities was spread in the entire Greek world, over large areas<sup>40</sup>.

However, it seems that in 6<sup>th</sup>-4<sup>th</sup> century B.C. the most important and appreciated product was grains, much appreciated and needed in the Greek world<sup>41</sup>. Trade with grains gained special amplitude especially after 460 B.C., with syncope until 410, due to Athenian hegemony and economic control<sup>42</sup>. Then, towards the end of the 5<sup>th</sup> century and in the first half of the 6<sup>th</sup> century B.C., it continues to be very important again<sup>43</sup>. It is also true that we lack direct information about our cities and their grain trade in early times. The only certain information regarding cereal supply to Athens from the Black Sea area at the beginning and especially towards the second half of 4<sup>th</sup> century B.C. is provided by Demosthenes, who recounts about the transport of cereals from the Bosporan Kingdom – approximately half of the cereals coming from the Black Sea area<sup>44</sup>. The other half most likely came from the other areas suitable for agriculture, with favourable weather regime, as Dobrudja could also be considered. The situation was due to the surplus of cereal products obtained from the local population or to cultivating the land within the *chora*. As we can see, there is few, extremely sparse preserved data, representing bits of information that doesn't help us much. However the role played by the Black Sea area as the granary of Athens remains an attested fact and must be recorded and registered as such. At Histria, mixed Greek-indigenous settlements were founded in the area<sup>45</sup>, starting from the second half of 6<sup>th</sup> century B.C., based on the development of trade and collaboration and cohabitation of the two populations, relying on partnership and contractual relations specific to that time<sup>46</sup>. Almost urban<sup>47</sup> settlements were identified at Tariverde (Cogealac,

---

<sup>39</sup> Pippidi, Berciu 1965, 186.

<sup>40</sup> Toutain 1996, 64.

<sup>41</sup> About the importance of grain in ancient Greek life see Jardé 1925, *passim*; Bravo 1983, 17-29.

<sup>42</sup> For data concerning grains trade at Athens in the 4<sup>th</sup> century B.C. see Garnsey 1985, 62-75; Whitby 1998, 102-128; Stroud 1998, *passim*; Keen 2000, 63-73; Descat 2004, 267-280; about the importance of grains from the Black Sea for the Athenians, see Meijer, van Nijf 1992 (second part), *passim*.

<sup>43</sup> Poenaru Bordea 1978, 4-5; Brun 1993, 185-196; Migeotte 1998, 229-246; Descat 2003, 589-612; Bresson 2007, 49-68; for 3<sup>rd</sup>-2<sup>nd</sup> century B.C. see at Marasco 1984, 286-294.

<sup>44</sup> Avram, Poenaru Bordea 2010, 621-622.

<sup>45</sup> Avram, Poenaru Bordea 2001, 546.

<sup>46</sup> Buzoianu 2001, 300.

<sup>47</sup> Avram 1989, 73.

Constanța County)<sup>48</sup>, Nuntași (Istria, Tulcea County)<sup>49</sup>, Vișina (Jurilovca, Tulcea County)<sup>50</sup>, Sinoe-Zmeica (Mihai Viteazu, Constanța County)<sup>51</sup>. Based on the economic and commercial policy of Histria, the local population was drawn and trained in deep internal changes, due to economic interest, based on some communication formulas that, in some places, completed the Greek-native symbiosis. The ears of wheat, the grains seem to be current commodities, besides animal and fish products. Along with the specific agricultural production, the presence of the Danube Delta in the case of Histria and other favourable areas for different species of fish in the Black Sea or at the mouth of other major rivers in the north and northwest set up the premises for the development of trade based on fish products.

Perhaps this economic and commercial reality created the future symbolic shapes of monetary signs, the "arrowheads" and the small Olbian fish and dolphins. The late Professor Constantin Preda recalled at a certain point the presence of some monetary signs from the first category, which are "something else, harder to define" (besides a few dozen specimen looking like willow, laurel, olive leaves etc.); and the existing differences "are insignificant"<sup>52</sup>. This situation is not random. The multitude of variants in this category cannot exclude that the vast majority corresponds, as iconographic symbol, to the monetary artistic achievements from several parts of the Greek world (as we have pointed out above), at a time when it was intended to imprint either cereal grains, or ears of cereals. "Circulation" and acceptance of these monetary signs in transactions is due to their shape and not necessarily to their weight<sup>53</sup>. The analysis must be made in direct connection with the moment of their use, with the context of colonial realities on the west coast of Pontus Euxinus and with the immediate economic and commercial needs of the two parties. The use (or acceptance) of monetary signs by the natives is an observed and proved fact, based on the archaeological and numismatic finds. Their diffusion in the local environment is similar to the findings in the indigenous graveyards of associated imported Greek pottery and local pottery<sup>54</sup>. Moreover, these monetary signs were considered a "turning point in the relations between the natives and the Greeks"<sup>55</sup>.

---

<sup>48</sup> Condurachi *et alii* 1953, 129-134; Condurachi *et alii* 1954, 104-105; Condurachi *et alii* 1955, 545-546; Pippidi *et alii* 1959, 321; Berciu, Preda 1961, 277; Preda 1972, 77-88; Preda 1975, 80-83; Irimia 1975, 95.

<sup>49</sup> Domăneanțu 1993, 59-78; Domăneanțu 1997, 46-47.

<sup>50</sup> Mănuclu-Adameșteanu 1980, 157-160; Mănuclu-Adameșteanu 1983, 174-177; Mănuclu-Adameșteanu, Mănuclu-Adameșteanu 1993, 205-216.

<sup>51</sup> Irimia 1980, 67, note 6; Buzoianu 2001, 125.

<sup>52</sup> Preda 1998, 33.

<sup>53</sup> Mănuclu-Adameșteanu 1984, 22.

<sup>54</sup> Irimia 1975, 89-114.

<sup>55</sup> Stingl 2004, 8.



1

Figure 6. Wheat grains-symbol on the monetary specimen.



2

What "humanistic sciences" – in this case history - are missing in order to achieve a result as close as possible to the goal is the possibility of using methodological tools, such as experiments, so widely applied in "exact sciences", in order to validate the proposed solutions. In the absence of experiments – impossible to replicate in historical sequence,

specialists cannot build their edifice on solid foundations. Many of our advanced interpretations can be discussed, analyzed, confirmed or invalidated by future research. We consider them to be working hypotheses, perhaps contributing to a major new phase of Romanian and western Black Sea numismatics research. Despite all difficulties, unusual discoveries and new methodological approaches, including more refined means of interpretation achieve the goal of contributing to a better understanding of the historical sequence, and the resulting picture will gain a high degree of credibility. We hope this is also the case of the subject we approached.



### Bibliography

- Anochin, V. A. 1986, *Monetyi-strelki*, în *Ol`vija i evo okruga*, Kiev, 69-87.
- Aricescu, A. 1975, *Tezaurul de semne de schimb premonetare de la Enisala*, SCN 6, 17-24.
- Avram, Al. 1989, *Pentru o fenomenologie a raporturilor dintre geți și greci*, SympThrac 7, Tulcea, 1989, 70-93.
- Avram, Al. 1996, *Modes de contacts entre grecs et gètes à Histria à l' époque arhaïque*, in *Sur les Traces des Argonautes, Actes du 6e symposium de Vani (Colchide), 22-29 septembre 1990*, Paris, eds. Otar Lordkipanidzé et Pierre Lévêque, 241-251.
- Avram, Al., Poenaru Bordea, Gh. 2001, *Coloniile grecești din Dobrogea*, in Petrescu-Dîmbovița, M., Vulpe Al. (coord.), *Istoria Românilor*, I, *Moștenirea Timpurilor Îndepărtate*, București, 533-634.
- Avram, Al., Poenaru Bordea, Gh. 2010, *Coloniile grecești din Dobrogea*, in Petrescu-Dîmbovița, M., Vulpe Al. (coord.), *Istoria Românilor*, I, *Moștenirea Timpurilor Îndepărtate*, București, 561-666.
- Belfiore, J. C. 2003, *Dictionnaire de Mythologie Grecque et Romaine*, Paris.
- Berciu, D., Preda, C. 1961, *Săpăturile de la Tariverde*, Materiale 7, 273-281.
- Bravo, B. 1983, *Le commerce des céréales chez les grecs de l'époque archaïque*, in Garnsey, P., Whittaker C. R. (eds.), *Trade and Famine in classical Antiquity*, 17-29.
- Bresson, A. 2007, *La construction d'un espace d'approvisionnement: les cités égéennes et le grain de mer Noire*, in Bresson, A., Ivantchik, A. (éds.), *La koinè nord-pontique*, Bordeaux, 49-68.
- Brun, P. 1993, *La stèle des céréales de Cyrène et le commerce du grain en Egée au IV<sup>ème</sup> siècle av. J.-C.*, ZPE 99, 185-196.
- Buzoianu, L. 2001, *Civilizația greacă în zona vest-pontică și impactul ei asupra lumii autohtone (sec. VII-IV a. Chr.)*, Constanța.
- Condurachi, E., Berciu, D., Canarache, V., Cantacuzino, Gh., Daie, M., Dimitriu, S., Florescu, Gr., Hampartumiam, N., Teodorescu, D., Morintz, S., Pippidi, D. M., Mincez, R., Popescu, D., Popescu, V., Preda, C., Sahaghian, L., Stoian, I., Stoianovici, El. 1953, *Șantierul Histria*, SCIV 4, 1-2, 90-152.
- Condurachi, E., Canarache, V., Dimitriu, S., Florescu, G., Cantacuzino, G., Pippidi, D. M., Stoian, I., Zirra, V. 1954, *Histria, Monografie arheologică*, I, București.
- Condurachi, E., Dimitriu, S., Canarache, V., Preda, C., Florescu, Gr., Tudor, D., Russu, I. I., Pippidi, D. M., Stoian, I., Berciu, D., Vulpe, R. 1955, *Șantierul arheologic Histria (1954)*, SCIV 6, 3-4, 515-557.
- Danov, C. M. 1990, *Characteristics of Greek colonization in Thrace*, in Descoeur, J.P. (ed.), *Proceedings of the first Australian Congress of Clasiscal Archaeology held in*

- honour of Emeritus Professor A.D.Trendall, Sydney 9-14 July, Canberra-Oxford, 151-155.
- Descat, R. 2003, *L'approvisionnement en grains dans le monde grec des cités: histoire d'une politique*, în Marin, B., Virlov, C. (éds.), *Nourrir les cités de Méditerranée, Antiquité – Temps Modernes*, Paris, 589-612.
- Descat, R. 2004, *Les années 330-325 av. J.-C. et la politique athénienne du blé*, *Pallas* 64, 267-280.
- Domăneanțu, C. 1993, *Un sanctuaire hellénistique du site de Nuntași II*, *Dacia*, N.S. 37, 59-78.
- Domăneanțu, C. 1997, *IV. Teritoriul histrian, A. Nuntași II*, în *Cronica Cercetărilor Arheologice, 1983-1992. A XXXI-a sesiune națională de rapoarte arheologice*, București, 12-15 iunie, 46-47.
- Domăneanțu, C., Poenaru Bordea, Gh. 1985, *Un tezaur de monede vârfuri de săgeți de la Nuntași (jud. Constanța)*, *SympThrac* 3, Constanța, 58.
- Garnsey, P. 1985, *Grain for Athens*, în Cartledge, P. A., Harvey, F. D. (eds.), *Crux: Essays presented to G. E. M. de Ste Croix on his 75<sup>th</sup> Birthday*, Exeter, 62-75.
- Iliescu, Vl. 1970, *Cu privire la colonizările grecești din Dobrogea și la data constituirii teritoriului lor rural*, *Pontica* 3, 87-98.
- Irimia, M. 1975, *Observații privind arheologia secolelor VII-V î.e.n. în Dobrogea*, *Pontica* 8, 89-114.
- Irimia, M. 1980, *Date noi privind așezările getice din Dobrogea în a doua epocă a fierului*, *Pontica* 13, 66-118.
- Jardé, A. 1925, *Les céréales dans la Grèce antique*, Paris.
- Keen, A. G. 2000, *Grain for Athens: The Importance of the Hellespontine Route in Athenian Foreign Policy before the Peloponnesian War*, în Oliver, G. J., Brock, R., Cornell, T. J., Hodkinson, S. (éds.), *The Sea in Antiquity*, Oxford, 63-73.
- Marasco, G. 1984, *Sui problemi dell'approvvigionamento di cereali in Atene nell'età dei Diadochi*, *Athenaeum* 62, 286-294.
- Mănucu-Adameșteanu, M. 1980, *Sondaajul efectuat în așezarea antică de la Vișina, com. Jurilovca, jud. Tulcea*, *Materiale*, 157-160.
- Mănucu-Adameșteanu, M. 1983, *Cercetările din așezarea antică de la Vișina, com. Jurilovca, jud. Tulcea (sec. VI-V î.e.n.)*, *Materiale*, 174-177.
- Mănucu Adameșteanu, M. 1984, *Tezaurul de semne premonetare în formă de vârf de săgeată de la Vișina (com. Jurilovca, jud. Tulcea)*, *SCN* 8, 17-24.
- Mănucu-Adameșteanu, M. 1992, *.....Orgame polis.....*, *Pontica* 25, 55-67.
- Mănucu-Adameșteanu, M. 1996, *Orgame polis epi to Istro*, în Porumb, M. (ed.), *Omaggio a Dinu Adameșteanu*, Cluj-Napoca, 101-109.
- Mănucu-Adameșteanu, M., Mănucu-Adameșteanu, Gh. 1993, *Așezarea de la Vișina, jud. Tulcea*, *Materiale*, 205-216.

- Meijer, F., van Nijf, O. 1992, *Trade, Transport and Society in the Ancient World*, London-New York.
- Migeotte, L. 1998, *Les ventes de grain public dans les cités grecques aux périodes classique et hellénistique*, în *La mémoire perdue, recherches sur l'administration romaine*, Paris-Rome, 229-246.
- Mihăilescu-Bîrliba, V. 1990, *Dacia răsăriteană în secolele VI-I î.e.n. Economie și monedă*, Iași.
- Nestor, I. 1935-1942, *Mijloace de schimb în vremurile preistorice*, BSNR 29-36, 83-90, 140-149.
- Pippidi, D. M., Eftimie, V., Stoian, I., Popescu, Em., Dimitriu, S., Coja, M., Zirra, V., Alexandrescu, P., Berciu, D., Preda, C 1959, *Raport asupra activității șantierului Histria în campania 1956*, Materiale 5, 283-328.
- Pippidi, D. M., Berciu, D. 1965, *Din istoria Dobrogei. Geți și greci la Dunărea de Jos din cele mai vechi timpuri pînă la cucerirea romană*, București.
- Poenaru Bordea, Gh. 1978, *Viața economică în Pontul Stâng în epoca elenistică în lumina izvoarelor arheologice și numismatice*, rezumatul tezei de doctorat, București.
- Poenaru Bordea, Gh. 2001, *Atelierul monetar al cetății Istros în perioada autonomiei*, in *Simpozion de Numismatică, dedicat împlinirii a patru secole de la prima unire a românilor sub Mihai Voievod Viteazul, Chișinău, 28-30 mai 2000, Comunicări, studii și note*, București, 9-33.
- Preda, C. 1972, *Tariverde-așezare băștinașă sau factorie histriană?*, Pontica 5, 77-88.
- Preda, C. 1975, *Über die Silbermünzen der Stadt Istros, Dacia*, N.S. 19, 77-85.
- Preda, C. 1998, *Istoria monedei în Dacia preromană*, București.
- Preda, C., Nubar, H. 1978, *Histria III. Descoperiri monetare 1914-1970*, București.
- Scorpan, C. 1980, *Vârfuri de săgeți-semne premonetare și monede histriene cu "roata" descoperite la Tomis*, SCN 7, 25-34.
- Sédillot, R. 1989, *Histoire morale & immorale de la monnaie*, Paris.
- Sorda, S. 1980, *A proposito di un rinvenimento di punte di freccia*, Annali del Istituto Italiano di Numismatica 26, 185-206.
- Stingl, T. 2004, *Gedanken zum Beginn des Münzwesens in Schwarzmeerraum*, în *Numismatic and sphragistic contributions to history of the Western Black Sea Coast, International Conference, Varna, septembrie 12<sup>th</sup> – 15<sup>th</sup>, 2001*, AMV, II, 7-16.
- Stoian, I. 1987, *Inscripțiile din Scythia Minor grecești și latine II. Tomis și teritoriul său*, București.
- Stroud, R. S. 1998, *The Athenian grain tax law of 374/73 B.C.*, Hesperia, Supplement 29, Princeton.

- Talmațchi, G. 2008, *Semnele monetare și monetăriile vest-pontice dobrogene (secolele VI-V a.Chr - stadiul cercetărilor, noi ipoteze și perspective*, in *Monedă și Comerț în sud-estul Europei*, II, Sibiu, 7-32.
- Talmațchi, G. 2009, *Despre semnele monetare din zona de vest și nord-vest a Pontului Euxin (secolele VI-V a.Chr.)*, *Pontica* 42, 587-610.
- Talmațchi, G. 2010, *Semne monetare din aria de vest și nord-vest a Pontului Euxin. De la simbol la comerț (secolele VI-V a.Chr.)*, Cluj-Napoca.
- Topalov, S. 2007, *Apollonia Pontica. Contribution to the study of the coin minting of the city 6<sup>th</sup> – 1<sup>st</sup> c. B. C.*, I-II, Sofia.
- Toutain, J. 1996, *The Economic life of the ancient world*, London-New York.
- Zaginajlo, A. G. 1982, *Kamenskij klad strelovidnyh lityh monet*, in *Numizmatika Antičnogo Pričenor`ja. Sbornik Naučnyh Trudov, Akademija Nauk Ukrainskoj SSR, Odesskij Archeologičeskij Muzej*, Kiev, 20-28.
- Wells, H. B. 1978, *The arrow-money of Thrace and southern Russia. A review and discussion of eastern european and soviet writing, part II*, *SAN* 9, 2, 24-26, 31.
- Whitby, M. 1998, *The Grain trade of Athens in the fourth century B.C.*, in Parkins, H., Smith, C. (eds.) *Trade, Traders and the Ancient City*, London, 102-128.