

The Numismatic  
Chronicle 173  
Offprint

Die-sharing in Moesia Inferior under Gordian III

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LONDON  
THE ROYAL NUMISMATIC SOCIETY  
2013



# Die-sharing in Moesia Inferior under Gordian III<sup>1</sup>

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[PLATES 26-29]

FORTY YEARS after the publication of Kraft's monumental work on the system of coin production in Asia Minor (KRAFT 1972), the phenomenon of die-sharing still represents the most intriguing aspect of civic coinage in the Imperial provinces. The existence of networks of mints cooperating throughout the Roman territories has greatly changed our perception of local and regional coin production and administration, although not yet fully revealing the mechanism and the extent of engagement between the cities. The degree of 'centralisation' of the system and of the possible involvement of travelling workshops prompts various questions of interpretation, especially about the large number of stylistic similarities between obverse dies which were not shared; the hoary question whether they derived from engraver-sharing or simply reflected the use of common models is still unresolved (JOHNSTON 1974; JOHNSTON 1983),<sup>2</sup> although recent studies seem to suggest that workshops tended to rely more on their own models than on 'central' ones (SPOERRI-BUTCHER 2006). On a much smaller scale than in Asia Minor, further evidence of die-sharing has also been gathered from the European provinces, chiefly Thrace (SCHULTZ 1999) and the Peloponnese (GRUNAUER-VON HOERSCHELMANN 1983; FLAMENT 2007), for which the engraver-sharing proposal has been revived again.<sup>3</sup>

The existence of such a system in Moesia Inferior, a province which still lacks a thorough numismatic study, has so far been attested only for a very small group of issues from the time of Gordian III, mainly from Marcianopolis, Odessus and Tomis.<sup>4</sup> The first discussion of the phenomenon dates back to Pick and Regling's catalogues in *AMNG*;<sup>5</sup> a more up-to-date list of the coin types has recently been

<sup>1</sup> I am very grateful to A. Burnett and R. Ashton for their comments on drafts of this article. I have also greatly profited from comments made by other members of the Department of Coins and Medals of the British Museum, when I gave a seminar on an earlier version of my study.

<sup>2</sup> See also BUTCHER 2005. For a recent summary, see JOHNSTON 2012, pp. 458-60. On the system of workshops in Syria, see BUTCHER 1987; BUTCHER 2004, pp. 242-3.

<sup>3</sup> For evidence of possible engraver-sharing in Epirus in the Severan age, see CALOMINO 2011, pp. 265-9, 276; for 3<sup>rd</sup> century Macedonia, see GAEBLER 1904, pp. 287-315, and TOURATSOGLU 1987, p. 24.

<sup>4</sup> Among the 5-*assaria* issues of Gordian III (see below), die-sharing has also been attested between Marcianopolis and Dionysopolis: PETER 2005, p. 112, pl. 8.2, 19-20. Peter also reports a die of Septimius Severus shared between coins of Marcianopolis and Anchialus (Thrace) in a private collection (not illustrated, see p. 112, n. 64); most of the dies of these two cities in the Severan period are remarkably similar, so that regular cooperation between them is highly probable.

<sup>5</sup> *AMNG* I/2.I, p. 528; an earlier mention had been made in *BAM*, p. 194. See also CALLU 1969, p. 34.

published by Lazarenko in his study of the 3<sup>rd</sup> century coinage of Odessus.<sup>6</sup> The die-sharing production involves a large bronze denomination characterized by an elaborate obverse portrait of the Emperor facing left, wearing a radiate crown, a cuirass and a lavish *paludamentum*; his posture is also very unusual, for he holds a globe and raises his right hand, perhaps in salutation. Twelve reverse types are known, six from Odessus and three each from Marcianopolis and Tomis, as described below (for a catalogue of specimens, die-study, and diagram of die-links, see pp. 117-122).

Obverse Die:

G1. ΑΥΤ Κ Μ ΑΝΤ ΓΟΡΔΙΑΝΟC ΑΥΤ Radiate bust of Gordian III l., wearing cuirass decorated with gorgoneion and cloak, holding globe and raising right hand

Reverse Dies:

### *Odessus*

O1. ΟΔΗCCEITΩΝ The Emperor radiate in military dress standing l., holding an inverse spear and a patera over a lighted tripod (*AMNG* I/2.I, 2317; *Moushmov* 1636).

**Pl. 26, 1**

O2. ΟΔΗCCEITΩΝ The Emperor radiate in military dress standing l., holding an inverse spear and Nike on globe (*AMNG* I/2.I, n. 2316; *Moushmov* 1637). **Pl. 26, 2**

O3. ΟΔΗCCEI/TΩΝ The Emperor radiate on horseback prancing r., holding spear (*Winsemann Falghera* 2041). **Pl. 26, 3**

O4. ΟΔΗCCEITΩΝ The Great God-Sarapis standing l., wearing *kalathos*, holding cornucopia and patera over lighted altar (*AMNG* I/2.I, 2314; *Moushmov* 1635).

**Pl. 26, 4**

O5. ΟΔΗCCEITΩΝ Asclepius standing, facing, resting on serpent-staff, looking l. at Hygieia standing r., feeding serpent from patera (*AMNG* I/2.I, 2315; *Moushmov* 1638).

**Pl. 26, 5**

O6. ΟΔΗCCEIT/ΩΝ (in exergue) The Great God-Sarapis standing, facing, looking l., wearing *kalathos*, holding cornucopia and patera over lighted altar; to l., Heracles standing r., resting on club and holding lion skin; to r., helmeted Athena standing l., holding inverse spear and shield (*YOUROUKOVA* 2000). **Pl. 26, 6**

### *Marcianopolis*

M1. ΥΠΙ ΤΕΡΤΥΛΛΙΑΝΟΥ ΜΑΡΚΙΑΝΟΠΟΛΙΤΩ; in exergue, ΟΜΟΝΟΙΑ The Emperor laureate standing l., wearing toga and clasping hand with the Tyche of Marcianopolis standing r., wearing turreted crown; between them, lighted tripod (*AMNG* I.1, n. 1098; *MOUSHMOV* 766). **Pl. 27, 7**

M2. ΥΠΙ ΤΕΡΤΥΛΛΙΑΝΟΥ ΜΑΡΚΙΑΝΟΠΟΛΙΤΩΝ (in exergue) The Emperor radiate in military dress standing, facing, holding inverse spear and *parazonium*, looking r. at Nike standing l., holding palm branch and crowning him with a wreath (*AMNG* I.1, 1099). **Pl. 27, 8**

M3. ΥΠΙ ΤΕΡΤΥΛΛΙΑΝΟΥ ΜΑΡΚΙΑΝΟΠΟΛΙΤΩΝ (in exergue) Helmeted Athena enthroned l., holding sceptre and Nike; behind, shield (*VARBANOV* 2005, 1931). **Pl. 27, 9**

<sup>6</sup> LAZARENKO 2012, nn. 251-61, pp. 161-2, 184-5, 200. In a forthcoming publication Lazarenko will cover the entire coinage of Odessus.

*Tomis*

- T1. ΜΗΤΡΟ ΠΟΝΤΟΥ ΤΟΜΕ/ΩC The Emperor laureate on horseback prancing r., spearing an enemy fallen on one knee l. and wearing Phrygian cap (*AMNG* I/2.I, 3366).  
**Pl. 27, 10**
- T2. ΜΗΤΡΟ ΠΟΝΤΟΥ ΤΟΜ/ΕΩC (in exergue) The Emperor laureate(?) in military dress standing l., holding inverse spear and a patera over a lighted altar; behind him, Nike standing, l., holding palm branch and crowning him with a wreath (*AMNG* I/2.I, 3367).  
**Pl. 27, 11**
- T3. ΜΗΤΡΟ ΠΟΝΤΟΥ ΤΟ/ΜΕΩC (in exergue) Asclepius standing, facing, resting on snake-staff, looking l. at Hygieia standing, r., feeding snake from patera; between them, Telesphorus standing, facing, wearing hood and mantle (*AMNG* I/2.I, 3364).  
**Pl. 27, 12**

## OUTPUT AND CIRCULATION

The 123 specimens recorded here were all struck from a single obverse die<sup>7</sup> combined with twelve reverse types, each known from a single die. Even if we allow for the emergence of further dies, it can reasonably be assumed that the entire operation was short-lived, perhaps lasting only a few weeks, and it seems unlikely that it was intended to have any practical economic purpose, such as provision of a new larger denomination for the market. The nominal value was the highest in circulation, certainly higher than the five-assaria pieces (marked with the Greek numeral Ε) issued on a large scale at the time by Odessus, Marcianopolis, Callatis, Istrus, Dionysopolis (and Anchialus in Thrace);<sup>8</sup> given their exceptional size and weight (*c.* 36/38mm and 23/28g) and the limited output, I suspect that they were intended as ‘medallions’ to serve a primarily celebratory purpose.<sup>9</sup> Thus, although they could perhaps have been used as legal tender, they would not have been part of the ordinary currency in circulation.<sup>10</sup> Perhaps not surprisingly, in the coinage of Tomis these and other equally large bronzes (see below) were the only ones not to have any denomination mark on the reverse (marks otherwise ranging from 1½ to 4½ *assaria*).<sup>11</sup>

<sup>7</sup> A second obverse die is attested in two specimens known from auction catalogues, which I here consider separately because of doubts concerning their authenticity (**Pl. 29, 26-27**). They belong to the O4 type (Great God): Vecchi 15, December 1999, 577 (17.56g, 33mm); and Art Coins Roma 6, December 2012, 1140 (44.44g, 37mm, 12h). They are both combined with an otherwise unknown second reverse die, featuring an epigraphic error in the legend (ΟΔΗΕCΕΙΤΩΝ); the former can be judged only from a black and white photograph and shows various anomalies (unusually sharp lettering, oddly rounded flan-edge), while the latter, although of more convincing appearance, comes from the same dies. More tellingly, the weights of both are well beyond the normal range for the series, the first being the lightest known and the second by far the heaviest. A third specimen belonging to type O5 (Asclepius and Hygieia) and featuring a third obverse die and an otherwise unattested reverse die (CNG 294, January 2013, 434: 23.23g, 35mm, 6h) is also suspect; it looks as if it was polished on both sides, and both its types and legends may have been slightly tooled (**Pl. 29, 28**). Moreover it lacks the depression in the centre of the flan, which occurs on the vast majority of other specimens and on the regular output of the three mints (WAGNER 1998 for discussion of this device). Although certainty is impossible, I regard these new dies too unreliable to be included in the catalogue.

<sup>8</sup> JOHNSTON 2007, pp. 198-207.

<sup>9</sup> They were classified as ‘medallions’ in *AMNG*, and in SCHÖNERT-GEISS 1990, pp. 26-8, 101. They are defined as ‘10 *assaria*’ in CALLU 1969, pp. 60-1, and as 9-*assaria* (double the 4½-*assaria* contemporary pieces) or (in Odessus) 10-*assaria* coins in ZIEGLER 1992, pp. 209-11. Johnston preferred to refer to this category of issues as ‘prestige coins’: JOHNSTON 2007, p. 274.

<sup>10</sup> See JOHNSTON 2007, p. 212, n. 321.

<sup>11</sup> JOHNSTON 2007, p. 202-3.

The area of circulation may also have been more limited than that of all the other ordinary denominations. Almost all the coins come from collections and auctions, and their provenances are often difficult to trace: over a quarter come from public and private collections in Bulgaria and Romania, the modern countries covering most of the territories of ancient Thrace and Moesia Inferior. Nonetheless, the provenances of a number of stray finds in these collections are recorded, and they all come from the Black Sea coast and its immediate hinterland (see Map). The bronzes in Varna Museum were discovered nearby: its Odessus coins come from the districts of Varna (VAR.5992) and Novi Pazar or Provadiya (VAR.4708), about 40 km inland; one of the museum's two Tomis coins was found in Reka Devnja (Marcianopolis, VAR.233), the other in Goren Chiflik (Varna district, VAR.4750). The Odessus coins of Ruse Museum come from the Dobrudja region, further north along the coast; those in the Shumen Museum (Vassil Haralanov Collection, donated in 1971) may have come from the territory of Odessus itself.<sup>12</sup> Another is reported to have been found in the same area but much nearer to the coast, near the village of Rogachevo (Blachik municipality).<sup>13</sup> An Odessus coin (Dobrich Museum of History, 4270) was found during an official archaeological survey of an area which included a settlement of the Roman Imperial period, near the village of Yovkovo (General Toshevo municipality).<sup>14</sup> Finally, an Odessus specimen was found in the area of the modern port of Constanta in Romania, in the 1950-1960s (MNHAC.1417).<sup>15</sup> This piece and the two Tomis specimens which were found respectively in the territories of Marcianopolis and Odessus show that these bronzes freely circulated within the three issuing cities,<sup>16</sup> although such find-spots may merely be evidence for the movement of people, rather than for coin use.

As far as smaller denominations are concerned, published find reports confirm that bronze coins of different mints circulated widely within the province,<sup>17</sup> and also suggest that a regional pattern can be identified. The issues of the major Lower Moesian mints (especially Marcianopolis and Nicopolis ad Istrum) seem to have circulated widely throughout the province, whereas those of the more northerly coastal cities (Tomis, Callatis and Istrus) had a more local circulation.<sup>18</sup> A geographical

<sup>12</sup> I thank I. Lazarenko, D. Draganov and Z. Zhekova for information about the museum collections in Varna, Ruse and Shumen respectively.

<sup>13</sup> PAROUSHEV 2000, p. 20.

<sup>14</sup> PAROUSHEV 2000.

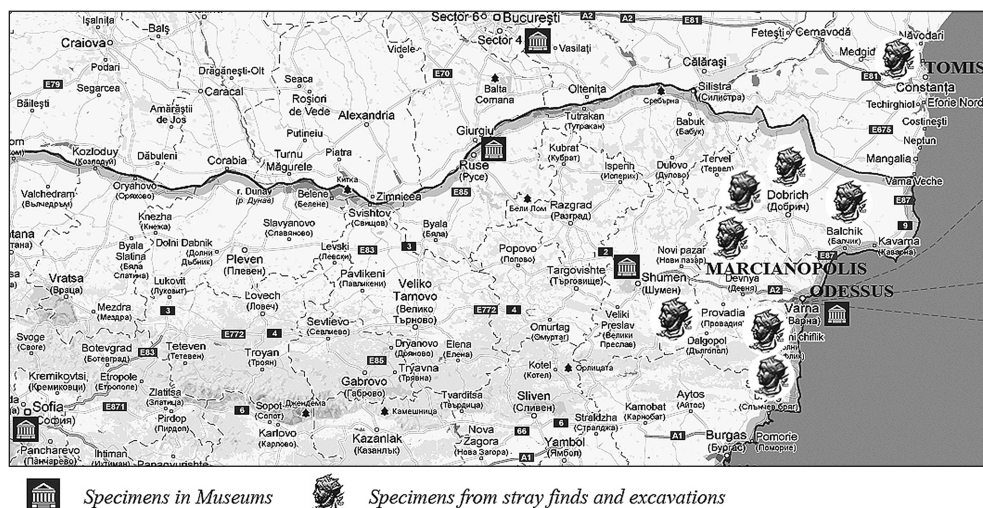
<sup>15</sup> TALMATCHI 2005.

<sup>16</sup> See BUTCHER 1995, p. 309.

<sup>17</sup> This is also confirmed by the composition of hoards in the region (see CALLU 1969, pp. 38-9) and even more convincingly by the frequency and distribution of countermarks; those from Odessus, including the civic monogram and a value mark, were applied on coins of 13 different cities: see LAZARENKO 2001, p. 58.

<sup>18</sup> At the site of Nicopolis ad Istrum, besides the city's own issues (the large majority), one finds coins from Marcianopolis, Odessus, Viminacium and various Thracian cities, but not from mints of the northern Black Sea coast: BUTCHER 1995, pp. 270-8. Similarly, only 5% of the coins found in the baths of Odessus comes from the northern region, much less than the percentage from Thrace, whereas Odessus, Marcianopolis and Nicopolis account for 75%: LAZARENKO 2001, p. 59. Conversely, in Istrus, further north of Tomis on the coast, coin finds include issues of Istrus and Tomis themselves and Callatis, but also of Nicopolis, Marcianopolis, Dionysopolis (not Odessus) and other Thracian cities: PREDÁ, NUBAR 1973, pp. 62-3. Further reports from the same area (the Dobrudja region) mainly concern coins of Istrus, but

pattern also probably helps to explain why a major centre like Nicopolis ad Istrum took no part in the die-sharing process. The three Black Sea cities could have already been collaborating as a sort of ‘monetary League’ (to revive Gardner’s term for the phenomenon of denomination marks),<sup>19</sup> given their proximity to the coast and to each other. It will be argued below that the ‘medallions’ were struck to commemorate Gordian’s Thracian and Moesian campaigns in AD 242. Perhaps Nicopolis was not on his route and did not strike a single large bronze issue in his honour.



Map. Specimens recorded in Bulgaria and Romania

Given the small number of dies employed and the concentration of finds within a relatively small area, the high survival rate of specimens seems surprising. Since the wear on the obverse die seems modest in light of its use with no fewer than 12 reverses, this could suggest that the bronzes did not circulate widely or for a long time. It could be argued that this was because most of the specimens were prematurely hoarded, in view of their potentially high value. There is however no archaeological evidence for this,<sup>20</sup> and although it cannot be excluded that some specimens in collections or from auctions originally came from hoards, a more attractive (but hardly provable) explanation is that they were distributed as medallionic donatives, or gifts.

also a considerable percentage of Nicopolis specimens (DIMA 2012); among finds in Ostrov (Constanta County), Nicopolis and Marcianopolis bronzes far outnumber Tomis issues (DIMA 2011).

<sup>19</sup> As in Tomis, almost all the other mints of the Black Sea region adopted a rather uniform range of value marks on their denominations, although not always simultaneously: see GARDNER 1876, pp. 313–4. The assumption that this system derived from a ‘monetary League’ was called into question by Schönert-Geiss, who pointed out that there was no overall coordination among the cities, and that value marks were occasionally also employed by other Thracian mints: SCHÖNERT-GEISS 1985. In fact, although each city had its own system, contemporary denominations were compatible with each other, chiefly within the Black Sea area (Marcianopolis included) during the late Severan and post-Severan age. For further discussion of the ‘Berlin School’ denominations system, see JOHNSTON 2007, p. 218, n. 341.

<sup>20</sup> Not a single ‘medallion’ has been recorded in a hoard, unlike several smaller civic bronzes of Gordian III. See, for instance, TACHELLA 1893 (a large sample of Gordian issues out of 640 specimens); MOUSHMOV 1922, p. 58 (where Gordian’s specimens account for 44% of 438 coins). Also, among stray finds in the baths of Odessus, there were large bronzes of Byzantium, Anchialus and Abydus, but none of the Moesian series: LAZARENKO 2001, p. 59.

## HISTORICAL CONTEXT

It is relatively easy to place these issues within the historical framework of Gordian's military campaign in the East in the years immediately preceding his arrival in Persia and his death. The *Scriptores Historiae Augustae* account of the lives of the Gordians reports that, after announcing the war against the Sasanians and gathering a huge army, the emperor 'marched into Moesia and there, even while making ready, he destroyed, put to flight, expelled, and drove away whatever forces of the enemy were in Thrace'<sup>21</sup>

These enemies were mainly Goths, who had started to invade the territories of Pontus Euxinus from the north, attacking the cities of Olbia and Tyra probably in AD 238, and then moving to the Western coast. The defences of the Balkans and the Danubian district, where the Carps were calling upon Gothic and Sarmatian aid to raid Dacia, were first organized by Tullius Menophilus, consular Legate of Moesia Inferior in AD 238-41.<sup>22</sup> But the Moesian issues must be dated within the context of later raids, which were repelled by the praetorian prefect C. Furius Sabinus Aquila Timesitheus (*PIR*<sup>2</sup> F 581), the empress Tranquillina's father, in AD 242.<sup>23</sup> This is shown by the signature of P. Tertullianus, the *Legatus Augusti Consularis* (ὕπατεύωντος) in AD 241-44 after Menophilus,<sup>24</sup> on the 'medallions' of Marcianopolis. According to the *SHA* sequence of events, Gordian officially opened the gates of Janus' Temple to declare war soon after the violent earthquake that struck Asia Minor (possibly in late AD 241)<sup>25</sup> and under the consulship of Praetextatus and Atticus in AD 242.<sup>26</sup> This *terminus post quem* can be combined with a reliable *ante quem*, the date of his arrival at Antioch late in the same year after his crossing to Asia in the summer.<sup>27</sup> It therefore seems likely that the Thracian and Moesian expedition took place in early AD 242<sup>28</sup> and that the celebratory bronzes were issued immediately or shortly thereafter.<sup>29</sup>

The most obvious reason for minting the 'medallions' would have been to celebrate the Emperor's victories and probably his acclamation in the issuing cities. Although the reliability of explaining civic issues of 'imperial types' as marking an Emperor's visit can be overstated,<sup>30</sup> the hypothesis that the Moesian production was struck on

<sup>21</sup> *SHA, Gordiani Tres*, XXVI, 4: *Fecit iter in Moesiam atque in ipso procinctu quicquid hostium in Thraciis fuit delevit, fugavit, expulit atque summovit.*

<sup>22</sup> STOUT 1911, p. 118; DEMOUGEOT 1969, pp. 395-6; LORIOU 1975, pp. 755-6.

<sup>23</sup> DRINKWATER 2005, p. 35; CHRISTOL 2006, pp. 96-7; *contra*, ANDO 2012, p. 111 (AD 241). The clearest mark of such traumatic events is the extraordinary peak in coin hoards (over 70) concealed under Gordian III in Dacia and the two Moesiae, as summarised in TOURATSOGLU 2006, pp. 176-81.

<sup>24</sup> *AMNG* I.1, pp. 186-7; STOUT 1911, p. 121 (with comments about Tertullianus' name).

<sup>25</sup> REYNOLDS 1982, p. 134.

<sup>26</sup> *SHA, Gordiani Tres*, XXVI, 3: *Sedato terrae motu Praetextato et Attico consulibus Gordianus aperto Iano gemino, quod signum erat indicti belli, profectus est contra Persas cum exercitu ingenti et tanto auro, ut vel auxiliis vel militibus facile Persas evinceret.* The consuls in AD 242 were C. Vettius Gratus Atticus Sabinianus and C. Asinius Lepidus Praetextatus: see MENNEN 2011, pp. 128, 258.

<sup>27</sup> KIENAST 1996, p. 195; *RPC* VII, pp. 27-28.

<sup>28</sup> See also DEMOUGEOT 1969, pp. 396-8 and TOURATSOGLU 2006, p. 138, proposing Spring-Summer AD 242.

<sup>29</sup> See also LAZARENKO 2012, p. 200.

<sup>30</sup> For a discussion, see HEUCHERT 2005, pp. 53-4.



the occasion of Gordian's arrival at one or more of the cities sounds particularly suitable to this context and more generally to the wider framework of his journey to Asia.<sup>31</sup> At least some of the Moesian cities would have been on the route to the East, especially if, as is assumed, the Emperor moved from the Danube front by land while Timesitheus proceeded by sea:<sup>32</sup> if Gordian crossed into Asia via Perinthus and Byzantium,<sup>33</sup> he could well have visited Marcianopolis and Odessus on his way; the harbour of Tomis could well have been the starting point for his *praefectus* to sail towards the Anatolian coast.

#### ICONOGRAPHY

The designs for the reverses are rather traditional. Studies of Moesian issues have mainly focused on Odessus and specifically on the interpretation of the most local cult subject, the male bearded figure wearing a *kalathos* and standing with cornucopia and patera over a lighted altar, the Great God (Θεός Μῆγας) Darzalas, who is peculiar to the region.<sup>34</sup> He tends to be assimilated to Sarapis especially in Roman imperial times,<sup>35</sup> and occurs very frequently as a reverse coin type; on the large bronzes of Odessus he appears in two depictions, either as a single figure or as the central and main element of a local divine triad, between Heracles and Athena, for which a specific cult with its own priesthood is attested.<sup>36</sup>

The overall repertory of types adopted by the three mints can be divided into two groups, 'imperial-military' and 'local-religious' types. The former were probably intended to commemorate the Emperor's victories over the Goths, honouring his bravery in the battle (the popular scene of the horseman with spear over a fallen enemy, T1, O3), his power (globe and Victory, O2, M2, T2), or his *pietas* (offering a libation over lighted altar, O1). The latter celebrated the cities and their protecting gods, chiefly Asclepius and Hygieia (O5, T3) and the local sacred triad (O4, O6, M3).

Within the former group, the atypical '*Homonoia*' issue at Marcianopolis (M1) deserves further comment.<sup>37</sup> The iconography of the Emperor holding the hand of the Tyche of the City in front of a flaming tripod, combined with the legend OMONOIA, occurs neither in the repertory of the so-called 'alliance issues',<sup>38</sup> nor in

<sup>31</sup> See JOHNSTON 2007, p. 144, n. 231, p. 212, n. 321. For the latest analysis of mint activity and iconographic choices possibly related to Gordian's *expeditio orientalis*, see RPC VII, pp. 92-3, 314, pl. 6.

<sup>32</sup> ANDO 2012, p. 112.

<sup>33</sup> RPC VII, p. 92.

<sup>34</sup> See LAZARENKO 2010, with previous bibliography.

<sup>35</sup> TACHEVA 1983, pp. 19, 52, 66.

<sup>36</sup> YOURUKOVA 2000; LAZARENKO 2007.

<sup>37</sup> See also AMNG I,1, p. 195; GEROV 1980, p. 300.

<sup>38</sup> Concord between two cities is normally represented as a depiction of the relevant protecting gods or personifications facing one other, sometimes clasping hands; FRANKE, NOLLÉ 1997. The legend OMONOIA also occurs in combination with scenes of 'concord' between a provincial city and Rome (for instance Edessa in Macedonia: PAPAETHYMIU 1994, pp. 161-2, pl. 12) or within a provincial league, like the *Koinon* of Macedonia (City personification alone or with Nike; see AMNG III/1, 326-39, pl. IV, nn. 28-31).

the conventional depiction of concord between Emperors, standing in toga with scroll and clasping hands, although it probably draws on both of them.<sup>39</sup> The Marcianopolis example is therefore to some extent a *unicum*. Rather than simply expressing the devotion and the gratitude of the major provincial centre to the Emperor, it could possibly refer to an exceptional event, again the visit of Gordian and maybe also the establishment of a particular agreement between him and the city.

The occurrence of the same reverse types in the three cities suggests overall supervision of topics for the iconographic programme, possibly by central authorities. This would support the view that the whole production fell under the direct control of the provincial governors or even of the imperial entourage. On the other hand, only three types out of nine (four out of eight if we group under the same category Athena and the Triad, to which she belongs) are shared by two coinages, and none is shared among all (*Table*): it seems that, even if the selection of designs was decided by mutual agreement, each city made its own choice independently of the others. A form of coordination among the civic administrations rather than under a common higher authority seems therefore a more likely option.

MARCIANOPOLIS	ODESSUS	TOMIS
	Emperor on horse (O3)	Emperor on horse (T1)
Emperor and Nike (M2)		Emperor and Nike (T2)
	Emperor holding Nike (O2)	
	Emperor holding patera (O1)	
Emperor and Tyche (M1)		
	Asclepius and Hygieia (O5)	Asclepius and Hygieia (T3)
	Great God Darzalas (O4)	
Athena (M3)	Heracles, Great God Darzalas, Athena (O6)	

*Table.* Coin types

An absence of external supervision is also suggested by analysis of the obverse die bust, which has a number of highly unusual features. The image of the Emperor holding a globe and raising his hand, which was to become a powerful ideological message in the Constantinian repertory of coin portraits,<sup>40</sup> appears for the first time on these provincial bronzes. According to Bastien's survey of coin busts in the Roman Empire, the earliest occurrence of the globe in an Emperor's hand is attested only a few years before Gordian, on an imperial medallion of Pupienus,<sup>41</sup> and is then attested in a series of medallions celebrating Gordian III himself.<sup>42</sup> However, this

<sup>39</sup> This occurs very frequently on the coinages of the provinces to celebrate the first co-rule of two Emperors, Marcus Aurelius and Lucius Verus, whose clasping hands scenes even appear on obverses: HEUCHERT 2005, pp. 53-4.

<sup>40</sup> See Bastien, pl. 170, 3, 180, 4, 186, 1.

<sup>41</sup> Gnecci, II, p. 87, 1 = RIC 25.

<sup>42</sup> Three main series are attested: *Adlocutio Augusti* (Gnecci, II, pp. 87-88, 6, 8, 11-12); triumphal quadriga (Gnecci, II, p. 90, 28; p. 91, 36); *Victoria Augusti* (Gnecci, II, p. 92-93, 45, 52).

iconography is rather different from the Moesian; the Emperor is laureate, holds a *Nikephoros* globe in one hand and an eagle-tipped sceptre in the other.<sup>43</sup> There are no precedents for the combination of the globe and the hand-raising gesture before the Moesian issues and afterwards it is adopted in imperial coinage only from the time of Gallienus;<sup>44</sup> no further evidence seems to come from coinages in the provinces.<sup>45</sup>

The type symbolises the *rector* (sometimes *restitutor*) *Orbis*<sup>46</sup> and, although its form would suggest a Roman imperial origin, it seems difficult to accept that an import from Rome would be deployed at a provincial mint before it appeared at the imperial mint. I surmise that it was conceived locally, reinforcing the view that workshops tended to rely more on their own models than on ‘centralised’ patterns. Thematic influence from the capital is anyway implicit, because the image of young Gordian holding a globe, either seated with sceptre (*RIC* 82, 294) or standing in military dress with a spear (*RIC* 91-4, 115, 305-8; **PI. 29, 19**),<sup>47</sup> was portrayed on the reverses of several imperial issues in AD 240-2, i.e. before the Moesian bronzes. Likewise drawing on imperial reverses, the iconography combining a radiate crown with a globe and a raised hand certainly belongs to a god, Helios-Sol, and occurs increasingly as a coin type from the Severans and under Gordian III (*RIC* 83, 97-8, 109, 111, 213, 297; **PI. 29, 20**)<sup>48</sup> to the very popular image of *Sol Invictus Comes* in the Constantinian ideology. After the elevation of Caracalla to the rank of Augustus, the gradual assimilation of the young prince to the sun god’s features takes place also in explicit association with the RECTOR/PACATOR ORBIS legend, as a form of direct symbiosis between the divinity and the ruler (**PI. 29, 21**).<sup>49</sup> Not surprisingly, the closest resemblance to the gesture in the Moesian bust of Gordian occurs on the reverse of the gold *aureus* of Geta Caesar depicting a radiate bust of Caracalla in the guise of Sol to I., wearing aegis and raising hand (**PI. 29, 21**).<sup>50</sup>

This form of syncretism, although deriving from imperial ideology, could also reflect the cultural background of the Moesian issues of the imperial period, especially those of Odessus. The assimilation of the Great God-Sarapis and the sun god is widely attested in Thrace and Moesia Inferior, especially under Gordian III;<sup>51</sup> the existence of a temple of the Great God with Helios in a quadriga in the pediment, as depicted on some of Gordian’s Odessus issues (*AMNG* I/2.1, 282; **PI. 29, 23**), has been confirmed by archaeology.<sup>52</sup> The series with on obverse the unusual depiction of face-to-face

<sup>43</sup> See *Bastien*, pl. 91, 2 and 5.

<sup>44</sup> See *Bastien*, pp. 492, 509, pl. 91, 3, 10 (and pl. 102, 1-2).

<sup>45</sup> See, for instance, the survey of obverse busts in the issues of Asia Minor in *RPC* VII, pp. 30-1. A similar example of bust-type for Gordian, but still holding a Nike rather than a globe, comes from Tarsus in Cilicia: *SNG France-Cilicie* 1723; *SNG Levante* 1146-7

<sup>46</sup> See *Bastien*, pp. 491-9.

<sup>47</sup> **PI. 29, 19**: L.1965,1206.1 (*RIC* 91).

<sup>48</sup> **PI. 29, 20**: L.1937,0406.335 (*RIC* 83). For a synopsis, see *RIC* IV/3, pp. 5-7. About the image of *Sol* holding a globe as part of the Imperial ideology in preparation of the war against the Persian Empire, see LORIOU 1975, p. 766; also MANDERS 2012, in particular pp. 121-32.

<sup>49</sup> **PI. 29, 21**: L.G3,RIG.284 (*RIC* 282). See also *Bastien*, p. 502, pl. 84, n. 2.

<sup>50</sup> **PI. 29, 22**: L.1864,1128.287. See *Bastien*, pl. 85, n. 8.

<sup>51</sup> See: TACHEVA 1983, pp. 66-7; PETER 2004, pp. 180-1; PETER 2005, pp. 110-1.

<sup>52</sup> **PI. 29, 23**: Lanz 141, May 2008, 663. A shrine decorated with a radiate Helios in a quadriga was found in the remains of a temple of the Great Goddess in the agora of Dionysopolis; TACHEVA 1983, pp. 66-7; LAZARENKO 2010.

busts of the Emperor and Sarapis-Darzalas were first introduced under Gordian III at Odessus, Marcianopolis and Tomis (and in Dionysopolis and Mesembria in Thrace as well), and continued under Philip.<sup>53</sup> A direct association between the Emperor and the local version of sun god is therefore very plausible.<sup>54</sup> It is particularly significant for the interpretation of the iconography of our ‘medallions’ that the spread of this syncretic version and the consolidation of its link to the imperial cult in the region was probably fostered by the adoption of the worship of Helios (from Antoninus Pius onward) as protector of the army and sponsor of its victories; this would corroborate the view that the ‘medallions’ were issued for celebratory purposes on the occasion of Gordian’s expedition to Moesia (and to Persia) and perhaps of the presence of his troops in the province.<sup>55</sup>

#### DIE-SHARING AND CONTROL

I have argued that the management of the die-sharing operation was largely if not entirely local, and that it depended on mutual cooperation among the three cities. Differences among their coinages, especially in their scales of production, suggest that Odessus operated more independently than the others and that it played a leading role. In fact, the ratio of reverse dies (and types) among Odessus, Tomis and Marcianopolis is 2:1:1 (6, 3 and 3), while the proportion of surviving specimens is even more unbalanced, at *c.* 6:2:1.5 (80, 26 and 17).<sup>56</sup> The city probably took the initiative to celebrate the military success of Gordian and possibly his visit to the Moesian communities. The idea of producing joint issues could derive either from Odessus itself or from the desire of the other two cities to take part in the celebration. As well as their sharing of value marks, discussed above, the three cities will certainly have had well-established diplomatic and economic relations.<sup>57</sup> Odessus had a long-standing minting tradition, was an important religious centre, and was well-placed geographically to liaise with the other two and manage the die-sharing.

Nonetheless, the scarcer output of Marcianopolis and Tomis was complemented by certain other bronze ‘medallions’, with a standard laureate, rather than radiate, portrait on the obverse (see the Appendix below for a catalogue and die-study). Five reverse types are so far known, mostly similar or identical to ones used for the radiate-head bronzes. The Athena seated-type of Marcianopolis is adopted at Tomis (T5, **Pl. 28, 17**). The ‘Nike scene’ and the *Homonoia* scene occur at Marcianopolis

<sup>53</sup> PETER 2004, p. 181, with previous bibliography. Not surprisingly, there is evidence of die-sharing among these strange and presumably ‘joint’ issues (all very similar to each other in style and fabric) involving various cities across the two provinces: see PETER 2005.

<sup>54</sup> The introduction of an imperial cult in Odessus under Gordian III has been proposed by LAZARENKO 2007, p. 370.

<sup>55</sup> TACHEVA 1983, p. 67; PETER 2004, p. 183; PETER 2005, p. 113; LAZARENKO 2007, p. 370. On the role of the army in the romanisation of the region under the Empire, see PETCULESCU 2006. On the large number of troops between the territories of Sirmium and Viminacium in AD 242 waiting for the expedition to depart to Asia, see LORJOT 1975, p. 766.

<sup>56</sup> The output of Odessus also had more scenes related to local cults than did that of the others.

<sup>57</sup> Tomis and Odessus belonged to the Pentapolis (or Hexapolis) of the Koinon of Pontus Euxine (Tomis being the Metropolis); Marcianopolis, although not a member of this league, was probably the most important administrative centre, being under the direct control of the *Legatus Consularis*. See NAWOTKA 1997, p. 216-27.

(**Pl. 28, 13-14**), and the Asclepius/Hygieia/Telesphorus scene at Tomis (**Pl. 28, 16**), in both cases using the same reverse dies as for the radiate series.<sup>58</sup> The fifth coin type attested for Tomis features a new design, the Tyche of the City enthroned with sceptre and cornucopia (T4, **Pl. 28, 15**);<sup>59</sup> this issue at Tomis also involves the sharing of an obverse die (G2a) used at Marcianopolis, the only instance so far among the laureate series (see the diagram of die-sharing on **p. 122** below). All these laureate series clearly belong in the same context as the ‘radiates’, but for some reason seem to have been produced in a different (perhaps slightly later) phase of the die-sharing operation.

The use of a different set of obverse dies could have been caused by the need to replace the ‘radiate’ die, perhaps because of damage or breakage, in order to complete production, although analysis of its wear seems to show that the single radiate die employed for the three mints (G1) remained in good condition. Alternatively, the end of the exceptional radiate series and the beginning of a new stage of shared coinage, directly involving only Marcianopolis and Tomis, may be the explanation. Two obverse dies (G2a-b, at least one shared) were employed to strike the laureate series, although the scale of production seems to have been much lower (5 coin types, of which two were reused from the radiate series; 19 specimens so far recorded). This suggests that the cities operated more independently of Odessus during the second phase. The style of the portrait is also revealing. The radiate bust is of good style, and, although Gordian looks unrealistically mature (he was at the time under 17 years old and is portrayed as such on contemporary imperial medallions), it is likely that a die-cutter of higher than normal competence was employed for this exceptional occasion.<sup>60</sup> By contrast, the style of the laureate portraits, which were probably made by the same engraver (not the engraver of the radiate bust) is definitely inferior.

The above could be taken to indicate that each city was responsible for producing its own issues during the die-sharing episode. However, although Marcianopolis and Tomis may have paid for their share of output, there is no need to suppose that the bronzes were produced in all three cities rather than at a single mint. In the case of the radiate series, the small scale of production and the employment of a single die would have made it much easier (in terms of costs, equipment, transport

<sup>58</sup> The laureate issue with the Asclepius and Hygieia reverse type (T3) is only known in a single very worn specimen and the obverse die is hard to identify; it is much more probably G2b than G2a (see die-sharing diagram).

<sup>59</sup> A variation of this type (Tyche of the City standing, T6) also occurs in a further large bronze series of Tomis, employing a new radiate obverse die (G3), which was apparently not involved in the die-sharing operation; see Appendix. It is worth mentioning that this obverse closely resembles a contemporary radiate bust of Gordian on a similar ‘medallion’ of Anchialus in Thrace, with the ‘Moesian’ reverse type of Asclepius/Hygieia/Telesphorus (*AMNG* II/1.I, p. 217, 619). Anchialus also produced a remarkable laureate series of these bronzes, in some cases involving a bust with shield and spear l.; the reverses feature various designs, including labours of Heracles (see *AMNG* II/1.I, p. 217, 617-23). The city lay near the southern boundary of Moesia Inferior and, as noted above, was part of the ‘monetary League’ of Pontus Euxine; for a reported case of die-sharing between Anchialus and Marcianopolis, see n. 4 above.

<sup>60</sup> It is worth noting that imperial silver issues were struck in Antioch under Gordian III, perhaps employing very skilled local engravers: see BLAND 2012, pp. 526-9, with previous bibliography. A rare tetradrachm of Antioch issued in AD 238-40 also features a similar portrait to G1 employed in the Moesian series; the bust is radiate and draped to l. and the emperor raises his right hand: McAlee 2007, 868B (see commentary, pp. 316-9).

and involvement of mint-staff) to avoid moving the operation from one city to the others and to conduct it in secure conditions at a commonly agreed mint.<sup>61</sup> This would probably have been Odessus. Analysis of die wear (although applicable only to a very limited number of well preserved specimens) seems to suggest that the different issues were not struck in sequence, starting from Odessus and then passing to the other cities, but almost contemporaneously: this too suggests that they were struck at a single mint rather than at three.<sup>62</sup> The laureate series could also have been struck in Odessus, where some of the reverse dies had probably been used already, rather than at Marcianopolis and Tomis. A different engraver and a more conventional bust type were used, but this does not necessarily mean a different workshop.

## CONCLUSIONS

The Moesian case-study adds new evidence to the much debated and still unresolved interpretation of the phenomenon of die-sharing. It demonstrates that the system did not need to operate on a large scale or on a regular basis, but could also be deployed in circumstances such as special events. As coins commemorating Gordian's journey to the East, the Moesian issues have been aptly compared to the unusually large bronzes struck jointly in Bithynia by Nicaea, Nicomedia and Prusias ad Hypium.<sup>63</sup> But, although the circumstances and purposes were certainly analogous, there are substantial differences. The Bithynian bronzes are smaller and lighter (*c.*30/32mm, 15/16g), conforming with the usual local standard, and they were regularly countermarked (sometimes with numeral I for 10 *assaria*);<sup>64</sup> they were part of the normal structure of denominations in circulation. They were also probably produced on a larger scale than the Moesian ones (at least three different obverse dies are shared, both laureate and radiate),<sup>65</sup> and within a well-established system of die-sharing covering a wide range of denominations in the 3<sup>rd</sup> century.

In my view, in the Moesian communities the initiative was primarily local, was managed by a 'central' mint (Odessus),<sup>66</sup> and involved the other main political and administrative centres of the region, possibly on the basis of previous experience of monetary collaboration (or 'centralisation'?). This does not exclude the possibility that an itinerant workshop participated in the whole process (particularly in the second, 'laureate', phase of production), although the degree of involvement would be difficult

<sup>61</sup> This view is also supported by the die-axes, which in the case of all three cities are almost entirely at 12h-1h, with the exception of some minor issues (such as O5-6, possibly struck later?) mainly featuring 6h.

<sup>62</sup> I am very grateful to R. Bracey for kindly helping out with the study of die wear. Insofar as any pattern can be identified (the evidence is very slight), it seems more likely than not that the 'imperial' types were struck first (especially the Emperor holding a patera in Odessus series O4, which was clearly struck when the die was at its freshest), and then the 'local' types. There is no evidence for different degrees of die-wear on coins of different cities.

<sup>63</sup> JOHNSTON 2007, p. 144, n. 231.

<sup>64</sup> *GIC* 65, 68, 833. The obverse die (not shared with other mints) of a similar very large bronze of Gordian III at Prusias (33.98g, 36mm) was later countermarked with ΚΔ = 24 *assaria*; *GIC* 837; JOHNSTON 2007, p. 175.

<sup>65</sup> See KRAFT 1972, pl. 102-3, 38a-c, 39a-b, 45a-b, 46a-b.

<sup>66</sup> Kraft used the names of central mints as conventional labels for 'local workshops' involved in the die-sharing.

to determine (provision of equipment and engravers, or just liaison among the cities?). Nevertheless, the evidence for die-sharing (although so far very slight) among other Moesian and Thracian communities and involving ordinary denominations shows that the system could operate on a more regular, non-exceptional, basis; a systematic study of the 3<sup>rd</sup> century coinages of the Black Sea cities would surely show the scale and the degree of centralisation of this process. The ‘medallions’ of Gordian III were made in AD 242 or soon after and intended to celebrate the Emperor’s victories and presence in the province. Conceived by the local administrations and civic elites, whose beliefs and traditions they reflected, they were perhaps destined for privileged recipients, such as senior military personnel residing in the region.<sup>67</sup>

#### CATALOGUE<sup>68</sup>

<sup>67</sup> The hypothesis of imperial and provincial ‘medallions’ being conceived as prestige donatives, especially for military recipients, is supported by evidence of coin finds concentration in legionary and praetorian camps and, even more significantly, at the entrance of tombs within necropolis of select military groups, such as the cemetery of the imperial *equites singulares* on the *Via Labicana* in Rome; see SERAFIN, MOLINARI 2003, pp. 266-8.

<sup>68</sup> I should like to thank the following institutions for providing information and images of the coins: G. Bufalini - Rome, Museo Nazionale (R); M. Dotkova - Sofia, Archaeological Museum (S); A. Dowler - London, British Museum (L); D. Draganov - Ruse, Numismatic Museum (RU); M. Amandry, F. Duyrat - Paris, Bibliothèque Nationale de France (P); A. Geissen, H.J. Pfeiffer - University of Köln; G. Jekov, N. Hristova - Blagoevgrad, Southwest University; E. Kuvshinova - St. Petersburg, State Hermitage Museum (SPH); I. Lazarenko - Varna, Archaeological Museum (VAR); R. Martini - Milan, Gabinetto Numismatico (MI); E. Nicolae, T. Isvoranu - Bucharest, Institute of Archaeology (IAB); P. Segal - Boston, Museum of Fine Arts (BOS); G. Talmatchi - Constanta, Museum of National History and Archaeology (MNHAC); P. van Alfen - American Numismatic Society (ANS); K. Vondrovec - Vienna, Kunsthistorisches Museum (V); B. Weisser - Berlin, Staatliche Museen Münzkabinett (B); Z. Zhekova - Shumen, Regional Historical Museum (SH). I am also grateful to curators of institutions that do not have any specimens: J. Balen, Z. Demo (Zagreb, Archaeological Museum); F. Barello (Turin, Armeria Reale); P. Belien (Utrecht, Geldmuseum); F. Catalli (Florence, Museo Archeologico); D. Davidova (Plovdiv Museum); F. de Callatay, J. van Heesch (Brussels, Royal Library of Belgium); A. Degler (Wroclaw Museum); P. Giovetti (Bologna, Museo Archeologico); M. Giuzelev (Bourgas Museum); V. Heuchert (Oxford, Ashmolean Museum); W. Hollstein (Münzkabinett, Dresden); C. Klages (Bonn, LandesMuseum); P. Kos (Ljubljana, National Museum of Slovenia); S. Kovalenko (Moscow, Pushkin Museum of Fine Arts); E. Oberlander-Tarnoveanu (Bucharest, National Museum of History); M. Podini (Parma, Museo Archeologico Nazionale); A. Popescu (Cambridge, Fitzwilliam Museum); A. Romanowski (National Museum in Warsaw); R. Varga (University of Cluj-Napoca/National History Museum of Transylvania-collection partly inaccessible); B. Wieland (University of Freiburg, Germany). It was not possible to verify the presence of specimens in the Numismatic Museum of Athens. No specimens are included in the published Sylloges/Catalogues of: Bern, Budapest, Glasgow, Munich, Naples, Stockholm, Turin (Museo di Antichità), Tübingen, Winterthur; nor any in the following published collections: Lewis, Lindgren, Weber. No example is recorded in the archives of the Museums in Verona and Venice. I also thank the following colleagues for being very helpful with my enquiries: A. Bursche (University of Warsaw), F. Haymann (Dresden Museum), E. Paunov (University of Cardiff), E. Petac (Bucharest, Romanian Academy); D. Wigg-Wolf (Römisch-Germanische Kommission, Frankfurt/Main). I particularly acknowledge B. Callegher (University of Trieste) for giving me the opportunity to read a study of the Roman coinage of Odessus in the thesis of his pupil S. Vescovo (2009-10), which helped me understand the research potential of this material. Lastly, I am greatly indebted to I. Varbanov for his constant assistance over printed and digital auction records; I should also like to acknowledge the on-line databases of CNG, ACSearch, Wildwinds and CoinArchives for the use of their archives of images.

*Odessus*

- O1.1: COP.679: 23.51g, 12h (*AMNG I/2.I*, n. 2317.1; *SNG Copenhagen 679*, exchanged in 1922 for another in better condition, possibly 1.4)
- O1.2: Odessa(?) (*AMNG I/2.I*, 2317.2, 'Odessa')
- O1.3: from auction, available as cast(?) (*AMNG I/2.I*, 2317.3)
- O1.4(?): possibly the same as O1.1(?) (see *AMNG I/2.I*, 2317.4; *Mionnet Supp. 2*, p. 358, n. 931)
- O1.5: - (*AMNG I/2.I*, 2317.5)
- O1.6.: S.6995: 30.88g, 35mm, -
- O1.7: S.5156: 28.01g, 37mm, -
- O1.8: RU: 24.77g, 35mm, 12h
- O1.9: RU: 28.64g, 36mm, 12h (Forum Ancient Coins archive RP4788)
- O1.10: SH.138.VH (Vassil Haralanov coll.): 29.96g, 34.5mm, - (*ZHEKOVA 2003*, p. 42, 79)
- O1.11: SH.16.6.1.VH: -
- O1.12: IAB.1261/3467: 22.16g, 36mm, 12h
- O1.13: MNHAC.1417 (Constanta, coin find): 21.43g, 34mm, 12h (*TALMATCHI 2005*)
- O1.14: W. Stancomb coll.: 32.02g, 36mm, 12h (*SNG Stancomb 854*)
- O1.15: R.107743: 23.93g, 36mm, 12h
- O1.16: SPH.ON-A-DG-6953: 20.79g, 35.5mm, -
- O1.17: Harvard Art Museum.2001.60: 24.47g, 38mm, -
- O1.18: 27.51g, 37mm, - (Schweiz. Kreditanstalt 8, October 1987, 1276)
- O1.19: -, 37mm, - (Bankhaus H. Aufhäuser 9/10, October 1991, 518)
- O1.20: -, 37mm, - (Hirsch 174, May 1992, 996)
- O1.21: 27.90g, 35mm, - (*VARBANOV 2005*, 4440; *CNG 33*, March 1995, 1215)
- O1.22: Ex Garth R. Drewry coll.: 26.46g, 35mm, - (*CNA 109*, March 2005, 89; Superior, June 1996, 1788)
- O1.23:** 27.49g, 36mm, 12h (Triton XI, January 2008, 431). **Pl. 26, 1**
- O1.24: 27.16g, 34mm, - (Peus 398, April 2009, 609; New York Sale, IX, 136; Lanz 123, May 2005, 755)
- O1.25: 24.45g, 33mm, 1h (*CNG 233*, May 2010, 271; Gorny & Mosch 165, March 2008, 1471)
- O1.26: 28.84g, 36mm, 1h (Triton XV, January 2012, 1378)
- O1.27: 28.89g, 35mm, 1h (Art Coins Roma 7, May 2013, 770; Gorny & Mosch 104, October 2000, 603)
- O1.28: 24.88g, 33mm, 12h (Lanz 156, June 2013, 385; *CNG 91*, September 2012, 947)
- O1.29: 28.11g, 38mm, - (Künker 19, June 2013, 495; ex Peus 406, April 2012, 453; Gorny & Mosch 92, November 1998, 385)
- O1.30: 24.67g, 34mm, 1h (*CNG 307*, July 2013, 171)
- O1.31: Private coll. (T. Burger): 24.90g, 34mm, -
- O2.1: B: 20.43g, 35mm, 12h (*BAM*, p. 195, n. 16; *Mionnet Supp. 2*, p. 358, 933; *AMNG I/2.I*, 2316.1)
- O2.2: VAR.4708: 24.43g, 33.5mm, 12h
- O2.3: 24.23g, 33mm, - (*CNG 155*, January 2007, 239)
- O2.4: 24.33g, 33mm, - (*CNG 158*, February 2007, 141; NF Schulten GmbH, April 1988, 823)
- O2.5:** 25.70g, 35mm, 12h (Lanz 138, November 2007, 800). **Pl. 26, 2**
- O2.6: 25.73g, 37mm, - (Artemide Aste 35, April 2012, 218; Hirsch 263, September 2009, 2891)



- O2.7: -, 35mm, - (Edgar L. Owen 6641)
- O3.1:** L.1905,1014.10: 24.44g, 37mm, 1h. **Pl. 26, 3**
- O3.2: VAR.5992: 15.21g, 34mm, 12h
- O3.3: Dobrich Museum of History.4270 (Dobrich, coin find): 25.31g, 34mm, - (VARBANOV 2005, 4442; PROUSHEV 2000)
- O3.4: Rogachevo (Balchik Municipality; coin find): - (PROUSHEV 2000)
- O3.5: IAB.1261/3217: 21.87g, 35mm, 12h
- O3.6: E. Winsemann Falghera coll. 2041: 22.10g, 35.5mm, 1h (*Winsemann Falghera* 2041)
- O3.7: 24.93g, 36mm, 12h (CNG 69, June 2005, 921)
- O3.8: Ex R.D. Frederick coll.: 21.98g, 33mm, 12h (CNG 290, November 2012, 240)
- O3.9: Private coll.: 21.72g, 34mm, -
- O4.1:** B (Löbbecke): 25.81g, 35mm, 1h (*AMNG* I/2.I, 2314.1, pl. V, n. 5; *Moushmov*, pl. IV, 3). **Pl. 26, 4**
- O4.2: V.GR.8199: 23.21g, 34.5mm, 1h (*AMNG* I/2.I, 2314.2; *Mionnet Supp.* 2, p. 357, 925)
- O4.3: VAR.98: 22.70g, 35mm, -
- O4.4: VAR.5846: 23.73g, 35.5mm, -
- O4.5: RU: 31.41g, 37mm, 12h
- O4.6: 29.81g, 37mm, - (Lanz 64, June 1993, 727)
- O4.7: 22.89g, 35mm, - (CNG 58, September 2001, 917; CNG 55, September 2000, 940)
- O4.8: -, 37mm, - (VARBANOV 2005, 4444; Hirsch 196, September 1997, 869; Hirsch 186, May 1995, 1323)
- O4.9: 24.35g, 36mm, - (Peus 366, October 2000, 363; Hirsch 195, May 1997, 866; Hirsch 189, February 1996, 760)
- O4.10: 26.09g, 37mm, - (Künker 94, September 2004, 2008)
- O4.11: 27.60g, 36mm, - (Rauch 11, September 2006, 406)
- O4.12: 26.88g, 36mm, - (New York Sale 14, January 2007, 152; Gorny & Mosch 115, March 2002, 1303)
- O4.13: 23.96g, -, - (Heidelberg Münzhandlung Herbert 59, April 2012, 150)
- O4.14: - (Auktionen Frühwald 102/2, July 2013, 763)
- O4.15: Private coll. (T. Burger): 23.90g, 34mm, -
- O5.1: COP.678: 25.71g, 6h (*AMNG* I/2.I, 2315.1; *SNG Copenhagen* 678)
- O5.2: Lischine coll.: - (*AMNG* I/2.I, 2315.2; *Lischine* 633)
- O5.3: B (Löbbecke): 23.90g, 36mm, 6h (*AMNG* I/2.I, 2315.3)
- O5.4:** P.GIIIrv076: 30.02g, 39mm, - (*Mionnet* I, p. 397, 230; *AMNG* I/2.I, 2315.4). **Pl. 26, 5**
- O5.5: S.6565: 23.27g, 32mm, -
- O5.6: SPH.ON-A-DG-6952: 27.69g, 35mm, -
- O5.7: Private coll. (Bulgaria) -
- O5.8: 28.84g, 35mm, - (Monnaies 21, June 2004, 3021)
- O5.9: 26.45g, 34mm, - (Gorny & Mosch 165, March 2008, 1472)
- O5.10: 25.65g, 36mm, 6h (Heritage-Gemini Auctions, April 2011, 406)
- O5.11: Private coll. (USA) 24.55g, 33mm, - (ebay auction-Wildwinds)
- O6.1: B.607.1914: 21.94g, 36mm, 7h (Egger XLVI, May 1914, Prowe coll., 273)
- O6.2: BOS.63.1398: 23.68g, 36mm, 12h
- O6.3: RU: 20.13g, 34mm, 6h
- O6.4:** Hristov coll. (Sofia): 27.59g, 37mm, - (YOROUKOVA 2000; CNG 69, June 2005, 920; CNG 51, September 1999, 849). **Pl. 26, 6**

O6.5: 29.36g, 36mm, - (Lanz 109, May 2002, 723)

O6.6: 31.39g, 34mm, - (CNG 162, April 2007, 165)

O6.7: Private coll. (Bulgaria): 29.37g, 36mm, - (not the same specimen as O6.5)

### *Marcianopolis*

M1.1: B.1098: 25.46g, 34mm, 1h (*BAM*, p. 68, n. 62, pl. III, 24; *AMNG* I.1, 1098.1)

**M1.2:** L.1844,0425.1916: 27.30g, 37mm, 1h (*BMC* 80; *AMNG* I.1, n. 1098.2). **Pl. 27, 7**

M1.3: P.697: 21.21g, 35mm, 1h (*AMNG* I.1, n. 1098.3)

M1.4: V.GR.7975: 26.95g, 34.5mm, 1h (*Mionnet* Supp. 2, p. 109, 323; *AMNG* I.1, 1098.4)

M1.5: S.8789: 22.90g, 34mm, -

M1.6: 26.10g, 35mm, - (Egger XLVI, May 1914, Prowe coll., 130)

M1.7: 27.89g, 38mm, - (VARBANOV 2005,1935; Lanz 112, November 2002, 770)

M1.8: 20.58g, 37mm, - (Peus 403, April 2011, 244; ex Künker 111, March 2006, 6957)<sup>69</sup>

M1.9: 27.53g, 36mm, 1h (Roma Numismatics 5, March 2013, 866; Lanz 114, May 2003, 601)

M2.1: IAB.1261/1650: 27.29g, 35mm, 12h (*AMNG* I.1, 1099.1)

M2.2: Plovdiv(?): - (*Moushmov* pl. XIII, n. 2?; *AMNG* I.1, n. 1099.2, 'Philippopel')

M2.3: S.1277: 28,25g, 36mm, -

**M2.4:** BOS.64.2154: 24.73g, 34.5mm, 1h. **Pl. 27, 8**

M2.5: 28.48g, 35mm, - (CNG 112, April 2005, 104)

M3.1: S.8490: 23,91g, 32.5mm, -

M3.2: Ex Garth R. Drewry coll.: 28.10g, 34mm, 1h (CNG 69, June 2005, 918; Stack's, May 1978, 602)

**M3.3:** 25.60g, 37mm, 12h (VARBANOV 2005,1931; Monnaies 43, April 2010, 540; Gorny & Mosch 117, October 2002, 356). **Pl. 27, 9**

### *Tomis*

**T1.1:** B (Imh-BI.1900): 25.37g, 35mm, 12h (*AMNG* I/2.I, 3366.1, pl. VII, n. 18; *Moushmov*, pl. IV, 4). **Pl. 27, 10**

T1.2: ex B (Löbbecke, duplicate): 25.40g, 35mm, 12h (Hirsch 26, May 1910, 122; *AMNG* 2/I, 3366.2)

T1.3: Bucharest(?):<sup>70</sup> - (*AMNG* I/2.I, n. 3366.3)

T1.4: Ex Prince Chatkovskoi coll.: 26.95g, 34mm, - (Egger auction, January 1908, 226; *AMNG* 2/I, 3366.4)

T1.5: Gotha: 25.05g, - (*AMNG* I/2.I, n. 3366.5)<sup>71</sup>

T1.6: P.1017: 25.04g, 35mm, 1h (*Mionnet* 1, p. 363, 60; *AMNG* I/2.I, 3366.6; obverse tooled)

T1.7: IAB.1261/3216 (Soutzo coll.):<sup>72</sup> 19.30g, 33mm, 12h (*AMNG* I/2.I, 3366.7)

<sup>69</sup> Rauch 73, May 2004, 418 (25.85g, 34mm) and CNG eAuction 288, October 2012, 289 (ex R.D. Frederick Coll., 21.26g, 32mm, 12h) seem to be the same coin as M1.8, although the recorded weights and diameters are completely different.

<sup>70</sup> There seems to be no evidence of this coin in the Bucharest collections.

<sup>71</sup> It was not possible to gather information from the Gotha Numismatic Collection to check the existence of this and other possible specimens.

<sup>72</sup> The Soutzo Collection was first donated to the Romanian Academy of Bucharest in 1912, after the publication of *AMNG*, when some specimens could have already been sold; it was moved to Moscow in 1917-1956, and eventually returned to the Institute of Archaeology (Collection of 'Vasile Pârvan'). I am grateful to E. Petac for this information. For the Soutzo collection, see PETAC 2005.

- T1.8: - (*AMNG* I/2.I, 3366.8)  
 T1.9: L.1974,0102.5: 24.95g, 39mm, 1h  
 T1.10: ANS.70.142.14: 25.41g, 35mm, 1h  
 T1.11: SPH.ON-A-DG-34406: 24.35g, 36mm, -  
 T1.12: VAR.233: 27.48g, 36mm, 12h  
 T1.13: VAR.4750: 24.92g, 35.5mm, 12h (*VARBANOV* 2005, 5586)  
 T1.14: R.80245: 29.07g, 36mm, 12h (*Pozzi* 2542; Egger XLVI, May 1914, Prowe coll., 147)  
 T1.15: Missere coll.: 22.80g, 33.5mm, 1h (*Missere Fontana* 87)  
 T1.16: -, 36mm, - (Hirsch 181, February 1994, 799)  
 T1.17: 30.06g, 37mm, - (Lanz 106, November 2001, 626)  
 T1.18: Ex J.P. Righetti coll. 10335: 22.42g, 34mm, 12h (CNA 227, February 2010, 256)  
 T1.19: CEM Group: 22.25g, 35mm, 12h (CNA 88, September 2011, 726)  
 T1.20: 23.28g, 34mm, 1h (CNG 274, February 2012, 268)  
 T1.21: -, 40mm, - (Hirsch 287, February 2013, 2415; Hirsch 267, May 2010, 731)  
 T1.22: 24.01g, 37mm, - (Liveauctioneers, July 2013, 1019)  
 T1.23: 23.60g, 34mm, - (Jencek Historical Enterprise)  
**T2.1:** B (Imh-BI.1900, ex Samml. Rauch): 20.90g,<sup>73</sup> 38mm, 7h (*BBI* 5, 1870, p. 13, 1; Hamburger 15, October 1890, 315; *AMNG* I/2.I, 3367.1). **Pl. 29, 24-25**  
 T2.2: Ex Datchev coll.: 21.00g, 36mm, - (*VARBANOV* 2005, 5587) **Pl. 27, 11**  
**T3.1:** IAB.1261/3214 (Soutzo coll., ex Rollin): 25.04g, 36mm, 8h (*BulSNR* V/I, 1908, p. 26, 117, pl. II, 36; *AMNG* I/2.I, 3364.1). **Pl. 27, 12**

## APPENDIX: ISSUES OF MARCIANOPOLIS AND TOMIS

## Obverse dies:

- G2a. AYT K M ANTΩNIOC ΓOPΔIANOC Laureate, draped bust of Gordian III, r.  
 G2b. AYT·K·M·ANTΩNIOC ΓOPΔIANOC Laureate, draped bust of Gordian III, r.  
 G3. AYT K M ANTΩNI ΓOPΔIANOC AYΓ Radiate bust of Gordian III, r., wearing cuirass decorated with Nike crowning a trophy

## Reverse dies

*Tomis*

- T4. MHTPO ΠONTOY TOM/ΕΩC (in exergue) The Tyche of Tomis, wearing turreted crown, seated on throne, l., holding cornucopia and long sceptre. **Pl. 28, 15**  
 T5. MHTPO ΠONTOY, in exergue TOMEΩC Athena seated on throne, l., wearing helmet, holding sceptre and Nike; behind, shield (*AMNG* I/2.I, 3363; *Moushmov* 2251). **Pl. 28, 17**  
 T6. MHTPO ΠONTOY TOMEΩC The Tyche of Tomis, wearing turreted crown, standing facing, looking l., holding cornucopia and long sceptre; at her feet, river-god reclining r. (*AMNG* I/2.I, 3365; *Moushmov* pl. IV, 5). **Pl. 28, 18**

<sup>73</sup> The specimen in Berlin is c.0.10g lighter than the weight reported in *AMNG* (21.00g); comparing the very poor condition of the actual coin (**Pl. 29, 24**) and its early state of preservation as depicted in *BBI* 5, 1870 (**Pl. 29, 25**), one may assume that it was heavily cleaned before entering the Berlin collection.

*Marcianopolis*

**G2a-M1.1:** 27.89g, 36mm (VARBANOV 2005, 1936; Hirsch 196, September 1997, 867; Hirsch 190, May 1996, 1089). **Pl. 28, 13**

G2a-M1.2: 26.06g, 36mm, - (Lanz 92, June 1999, 990)

G2a-M1.3: Yale University Art Gallery 2004.6.484: 20.50g, 34mm, 12h

G2a-M2.1: Plovdiv(?): - (*AMNG* I.1, 1100.1, 'Philippopel')

G2a-M2.2: S.1077: 22.16g, 33mm, -

**G2a-M2.3:** H.J. Pfeiffer Coll.: 26.87g, 36mm (PFEIFFER 2010, 1487; Lanz 92, June 1999, 991). **Pl. 28, 14**

*Tomis*

**G2a-T4.1:** 25.06g, 36mm, - (Gorny & Mosch 165, March 2008, 1480). **Pl. 28, 15**

G2a-T4.2: 28.68g, - (La Galerie Numismatique, Lausanne & Vilmar Collectibles-NY, January 2007, 20363)

**G2b(?) - T3.1:** ex Datchev coll. 25.09g, 35mm, - (VARBANOV 2005, 5548). **Pl. 28, 16**

G2b-T5.1: P.998: 25.36g, 36mm, 1h (*Mionnet* Supp. 2, p. 201, 835; *AMNG* I/2/I, 3363.1)

G2b-T5.2: Soutzo coll., ex Rollin: 23.60g, 38mm, - (*BulSNR* V/I, 1908, p. 26, n. 117, pl. II, n. 35; *AMNG* I/2.I, n. 3363.2)

G2b-T5.3: Viscovich coll. (Zara): - (*AMNG* I,2/I, 3363.3)

G2b-T5.4: L.1958.0304.145

G2b-T5.5: MI.1232: -

G2b-T5.6: 25.78, 34mm, 1h (CNG 81, May 2009, 765; Triton XI, January 2008, 433)

G2b-T5.7: 26.69, 35mm, 12h (Roma Numismatics 4, September 2012, 2432; Gorny & Mosch 115, March 2002, 1285)

**G2b-T5.8:** 29.53g, 39mm, 12h (Lanz 156, June 2013, 386; CNG 91, September 2012, 499). **Pl. 28, 17**

G2b-T5.9: 27.90g, 36mm, - (VARBANOV 2005, 5549; Wildwinds 61562)

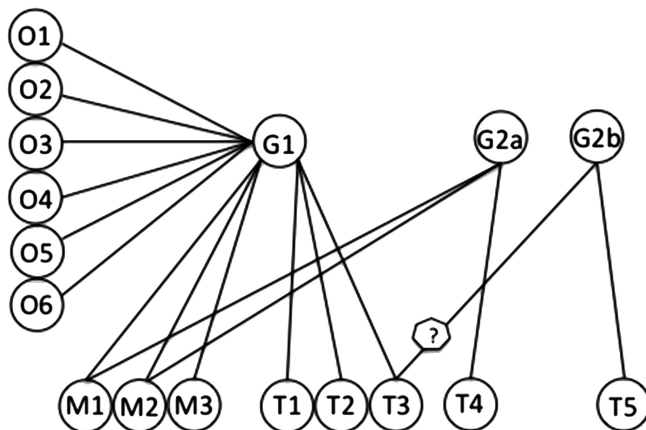
G2b-T5.10: 30.55g, 35mm, - (Herakles Numismatics inv. 5549)

G3-T6.1: B (Löbbecke): 22.29g, 37mm, 12h (*AMNG* I/2.I, 3365.1)

G3-T6.2: P.997: 27.20g, 36mm, 6h (*Mionnet* Supp. 2, p. 202, 843; *AMNG* I/2.I, n. 3365.2, pl. VII, 17; *Moushmov*, pl. IV, 5)

G3-T6.3: - (*AMNG* I/2.I, 3365.3)

**G3-T6.4:** 22.57g, 35mm, - (VARBANOV 2005, 5641; Triton VI, December 2001, 910). **Pl. 28, 18**



*Diagram. Die-sharing*

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PLATE 26



1



2



3



4



5



6



CALOMINO, DIE-SHARING IN MOESIA INFERIOR UNDER GORDIAN III (1)



7



8



9



10



11



12







CALOMINO, DIE-SHARING IN MOESIA INFERIOR UNDER GORDIAN III (4)

