
DIES FOR STRIKING REPUBLICAN AND EARLY IMPERIAL COINS FROM MOESIA AND THRACE: ANCIENT FORGERIES OR SOMETHING ELSE?

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Abstract: This paper attempts to trace the distribution of unofficial dies for striking late Republican and early Imperial coins in Moesia and Thrace, discussing eleven dies and one hub (master die). It deals with the key issues concerning these rare numismatic finds¹, their occurrence in the Balkan provinces of Roman Empire and their interpretation as genuine monetary items or as forgers' accessories. Such a large concentration of dies is found in a relatively constrained area, but so far understanding does not clearly revealed what their importance is. The problem appears to be essential for the comprehension of Roman political and military activities in the Balkans during the Augustan-Tiberian period, as well as for the general discussion on ancient coin techniques.

Keywords: *coin dies, hubs, production of coins, numismatics, ancient forgeries, Roman Republic, Moesia, Thrace.*

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*“There is no universally valid way of distinguishing
between forgers' dies and official dies”*

(M.H.CRAWFORD 1974, 577)

1. The Evidence

Currently no less than twelve coin dies² originate from the territories of ancient Thrace and Moesia.³ As far as I am aware, these are the following:

1. Obverse die, bronze mounted on iron case (h. 28 mm, diam. 28.8 mm, **fig. 1**) with negative impression of *aureus/denarius* of Augustus, legend AVGVSTVS / DIVI F – Lugdunum mint, dated to 15–13 BC (*RIC* I² 162A; *BNC* I, 1361⁴ TYPE). A SHARP CHISEL-CUT IN THE RIGHT FIELD. FOUND IN 1898

¹ Theoretical views in CRAWFORD 1981, 176–177, and CRAWFORD 1974, 576–577. A good up-to-date picture is to be found in STANNARD 2011, 59–79, esp. at 72–76.

² All ancient dies known up to 1953 (but not a single Republican) were collected in VERMEULE 1954, 20–26, with comments on 38–41, now fully superseded in MALKMUS 2008, 75 ff.

³ Previous research in the region in KUBITSCHKEK 1925; PEGAN 1965; BOJKOVA 1984; BOJKOVA 1992, and DUSANIĆ 1995.

⁴ In fact this was the first series of Augustus produced at Lugdunum, see GIARD 1976, 199, no. 1361.

NEAR VRATSA, NORTHWESTERN BULGARIA.⁵ NATIONAL ARCHAEOLOGICAL MUSEUM SOFIA, INVENTORY NUMBER 164.



Fig. 1a-b. Obverse die for aurei / denarii of Augustus, after 15–13 BC. Found near Vratsa, Bulgaria, 1898. NAIM Sofia, inv. no. 164 (Photo R. Staneva).

2. Obverse die – engraved (bronze mounted in iron sheath, h. 23mm, diam. 24.8 mm) for aurei/denarii of Augustus, with legend SPQR CAESARI AVGVSTO (fig. 2a-b). Found in the village of Dolna Dikanya (near Radomir, Pernik region) before 1901⁶ – for *denarii* assigned to an uncertain Spanish mint, probably *colonia Patricia* (modern-day Cordoba), dated to 17–16 BC (TYPE GIARD 1976, 1237; RIC I² 148). NATIONAL ARCHAEOLOGICAL MUSEUM SOFIA, INVENTORY NUMBER 165.⁷



Fig. 2a-b. Engraved obverse die for aurei / denarii of Augustus, after 17–16 BC. Found near Dolna Dikanya, Bulgaria. NAIM Sofia, inv. no. 165 (Photo after Malkmus 2008).

3. Obverse die (bronze inset in hexagonal case) with impression of legionary *denarius* of Mark Antony (Crawford 1974, no. 544/?). Found in the 1950s in the ‘Kuryakovets’ locality⁸ on the bank of the Sava river near Sremska Mitrovica (*Sirmium*) in Serbia.⁹ Present location unknown. The outline of the original coin is clearly visible, off-centre (fig. 3b).

⁵ Drawing in BABELON 1901, 908–909, fig. 27; KUBITSCHKEK 1925, 134–135, pl. 13, A–2; VERMEULE 1954, 23, no. 21; BOZHKOVA 1984, 15–19 = BOJKOVA 1992, 62–66; now MALKMUS 2008, no. V–21.

⁶ KUBITSCHKEK 1925, 134–135, pl. 13/A–3; VERMEULE 1954, 23, no. 22; see now MALKMUS 2008, 129, no. V–22.

⁷ It seems that BABELON 1901, 908–909, had confused the find-spots of those two dies from Bulgaria, and later BOJKOVA 1984, 15–18, had mechanically copied his error. This replacement has been corrected by KUBITSCHKEK 1925, 134. See a note in MALKMUS 2008, 129, under no. V–21.

⁸ PEGAN 1965, 435–436, pl. 30.1 and 1a; CRAWFORD 1974, 562, note 2; POPOVIĆ 1988, 150, n. 919; DUSANIĆ 1995, 137 = MALKMUS 2008, no. V–7u.

⁹ From 9 BC to AD 10 *Sirmium* remained in Roman Illyricum; then it was assigned to Pannonia.



Fig. 3a-b. Obverse die for legionary *denarii* of Mark Antony (Cr. 544), from Sremska Mitrovica, Serbia, before 1960 (Photo after Pegan 1961).

4. Reverse die (bronze inset in iron cylindrical shaft) for Caesar’s *denarii* (type Crawford 1974, no. 443/1, pontifical emblems), h. 48 mm, diam. 24 mm. Reportedly found in the vicinity of town of Montana, Northwestern Bulgaria.¹⁰ Apparently the impression was considered too shallow and later re-engraved, the outline of the original cast coin is well visible (fig. 4a-b). With no convincing arguments, the authenticity of this die was questioned by B. Woytek.¹¹



Fig. 4a-b. Re-engraved reverse die for Caesar’s *denarii* (Cr. 443)). Found near Montana, Bulgaria, around 2000 (Photo M. Manov).

5. A pair of dies for *denarii* of Augustus with Gaius and Lucius Caesares, after ca. 2–1 BC (type RIC I² 207, Lugdunum mint) – unknown provenance, reportedly from ‘Eastern Europe’, private property, examined in 2000 at Prähistorische Staatssammlung, Munich (fig. 5a-b).¹²

A. *Obverse*: bronze die mounted in iron case, h. 2.1 cm, w. 3.9x3.4 cm, diam. die 2.9 cm, 144 g; legend CAESAR AVGVSTVS DIVI F PATER PATRIAE.

B. *Reverse*: bronze die inset in iron conical shift, h. 4.74 cm, diam. die 2.55 cm, 172.61 g; legend CAESARES AVGVSTI F COS DESIG PRINC IVVENT, impression off-centered.

¹⁰ MANOV 2002, 1118–1121 = MALKMUS 2008, no. V7-k.

¹¹ WOYTEK 2005, 644–645.

¹² Published by B. ZIEGAUS, in Wamser 2000, 350–351, no. 71.



Fig. 5a-b. A pair of dies for denarii of Augustus, after 2–1 BC. Unknown provenance, Eastern Europe? (Photo after Ziegauš 2000, no. 71).

Here should be added another interesting item which appeared on the coin market in 1996:

6. Bronze obverse hub¹³ (positive) for *denarii / aurei* of Tiberius (type RIC I² 25–30), said to have been ‘found in Eastern Europe’ (diam. 20 mm, h. 12 mm, 12.32 g), now in Geldmuseum der Deutsche Bundesbank in Frankfurt (fig. 6).¹⁴



Fig. 6. A hub for obverses of denarii / aurei of Tiberius (RIC I² 25–30). Found in „Eastern Europe” ca.1995. Geldmuseum der Deutsche Bundesbank, Frankfurt (Photo after Walburg 2004).

7. Bronze reverse die (ending in tang for mounting in anvil, 13 mm × 20.5/21.5 mm) with negative impression of *denarius/aureus* of Tiberius, AD 14–37 (RIC I² 25–30). REPORTEDLY FOUND IN THE AREA OF OESCUS IN MOESIA (FIG. 7).¹⁵



Fig. 7. Reverse die for denarii / aurei of Tiberius, AD 14–37. Found in the area of Oescus, ca. 2000 (Photo Manov 2002).

¹³ On hubs and ‘hubbing’ see HILL 1922, 19–22 and CRAWFORD 1981, 176–177; M.H. Crawford fully rejected that hubs were used under the Republic (CRAWFORD 1974, 578), now supported by STANNARD 2011, 75–76.

¹⁴ CNG Mail Bid Sale 38 (6–7 June 1996), no. 877; WALBURG 2004, 85–90; see now MALKMUS 2008, 135, no. V–27c.

¹⁵ MANOV 2002, 1120–1121, no. 2. Private collection, Sofia = MALKMUS 2008, no. V–27d.

Twelve years ago two similar coin dies have become known. These are two iron shafts, ending in bronze with the legend engraved in retrograde, both for Mark Antony’s legionary denarii. A few years ago they simultaneously appeared on the American coin market with no provenance noted. According to anonymous sources, the obverse die below (no. 8) was found around 2000¹⁶, somewhere around the town of Montana (anc. *praesidium et castra Montanensium*), in Northwestern Bulgaria. The possibility that both dies form a single pair seems plausible, but other experts doubt that.¹⁷ These are as follows:

8. Obverse die (bronze in iron sheath) for legionary *denarii* of Mark Antony (Crawford 1974, no. 544/?), 26 mm × 24 mm, 57.61 g (fig. 8a-b).¹⁸ Present location unknown. It has been considered from B. Woyte as a modern forgery.¹⁹



Fig. 8a-b. Obverse die for legionary denarii of Mark Antony (Cr. 544/?), after 32/1 BC (photo after Triton V, 2002, no. 1849).

9. Reverse die (bronze in iron cylindrical shaft) for *denarii* of the same series of Mark Antony (Crawford 1974, no. 544/19, for LEG VI), 33 mm × 20 mm; 77.46 g, impression off-centre (fig. 9a-b). Present location unknown.²⁰



Fig. 9a-b. Reverse die for legionary denarii of Mark Antony (Cr. 544/19), after 32/1 BC (photo after Gemini I, 2005, no. 299, courtesy of P. Davis).

¹⁶ Subsequently seen by coin collectors in Montana and Sofia, 2001.

¹⁷ I am grateful to Mr. Phillip Davis, H.J.Berk Ltd., Chicago, for this comment.

¹⁸ CNG Triton sale V, 15 January 2002, no. 1849 = MALKMUS 2008, no. V–7o.

¹⁹ WOYTEK 2007, 504, Anm. 113.

²⁰ Gemini I, 11–12 January 2005, no. 299 (described as a “forgers’ die”) = MALKMUS 2008, no. V–7l.

Finally, another two forgers' dies for striking of Republican denarii, again from Moesia:

10. Reverse die (bronze mounted on iron shaft) with a negative impression of *denarius* of C. Porcius Cato, after 123 BC (Crawford 1974, no. 274/1), corroded and rusted; dimensions not known. Found in Northern Bulgaria, examined in a private collection in Sofia (April 2008); present location unknown (fig. 10a-b).



Fig. 10a-b. Reverse die for *denarii* of C. Porcius Cato, 123 BC (Cr. 274/1). Found in Northern Bulgaria (Photo I. Prokopov).

11. Obverse die (bronze mounted on short iron sheath, height 32 mm, diam. 22 × 25 mm) – a negative impression of *denarius* of D. Silanus L.f. – helmeted head of Roma right, P behind (Crawford 1974, no. 337/3), after 91 BC. Reportedly found in the region of Vratsa, Moesia, kept in National History Museum Sofia.²¹ (fig. 11a-b).



Fig. 11a-b. Obverse die for *denarii* of D. Silanus L.f., 91 BC (Cr. 337/3), found in Vratsa region. Front side and imprint (Photo after Penchev 2013).

2. Discussion

According to the available record, the majority of surviving genuine early Imperial coin dies come from locations within Roman Gaul, especially from the period from Augustus to Nero.²² Having in mind that the main Roman

mint for the period operated at *Lugdunum* (mod. Lyon)²³, this concentration of dies²⁴ fits well contextually. It is fascinating when dies originating from a distant location such as those from Moesia in the Balkans, having a different socio-economic environment, are found.

Most modern scholars agree that the majority of other dies, found outside Roman Gaul, are not official but contemporary *forgers' dies*.²⁵ The main argument has derived from the fact that these dies are usually produced not by real engraving (cutting) in negative, but by impressing (casting) a genuine coin into the heat-softened metal of the 'fake die', often called a *transfer-die*.²⁶ By this mechanical copying, most of the details and sharpness of the genuine coin are absent. Other shortcomings also occurred in this mechanical process, in particular the flan shape of the model being carried over on the die, often with incomplete or off-centre images, lettering and spreading the design (fig. 12).²⁷



Fig. 12. Obverse forgers' die made by impressing (casting) a genuine coin of Hadrian. From Veliko gradište, Serbia (Pincum). National Museum Belgrade (after Saria 1927, 14–15, Taf. 1.10).

The other reason is the basic rule that a genuine mint's dies were systematically destroyed under careful supervision, and no traces are left behind. But what if certain minting was carried out in camps during military marches, or in small towns in dangerous areas? And when instant dispatch took place? Would it be possible that this would result in coin dies being discarded instead of being destroyed?

The above catalogue of Moesian/Thracian dies produced twelve finds (one is a pair), where all except two (nos. 2 and 4) are made by mechanical casting. Such a large concentration of dies is found in a relatively constrained area (see fig. 13 – online map), but so far understanding does not clearly revealed what their importance is. At first glance it appears rather unusual for original coin dies to originate from Thrace, Moesia and Dacia, even more importantly

²¹ PENCHEV 2013, 391–393, figs. 1–7.

²² See a list of known genuine Roman dies in LE GENTILHOMME 1946, ii–viii; VERMEULE 1954; MALKMUS 2008, 128 f.

²³ On the mint of Lugdunum, see SUTHERLAND, *RIC I*², 27–29, 87–88, 103 and 155; and GIARD 1983.

²⁴ The majority of genuine dies of Lugdunum mint are listed in GIARD 1983, 27–30.

²⁵ VERMEULE 1954, 23, 38–39; CRAWFORD 1974, 562, n. 3 and 576.

²⁶ On the technique see CRAWFORD 1974, 560, n.1, 577–578; AMANDRY 1991, 95–99.

²⁷ STANNARD 2011, 75–76, fig. 11.

– before they had become Roman provinces. It seems that the phenomenon is a regional peculiarity, since the ancient coin dies are otherwise very rare monetary items.

The forgers' verdict is assigned also to the famous hoard of dies for copies of Republican denarii from Tilișca near Sibiu, in Transylvania. This coin workshop set came to light in 1961 during excavations of a Dacian settlement and included fourteen coin dies (6 obverse; 4 reverse, 4 completely defaced) of types struck between 150 BC and 70 BC, and also three iron cases, all hidden in a clay pot.²⁸ Other finds of forgers' dies in Dacia were made in the so-called 'Dacian mint' at Sarmizegetusa Regia, published by Glodariu²⁹ and elsewhere. Five dies from Sarmizegetusa range from an obverse die for denarius of C. Cassius (Cr. 266/1, 125 BC), of C. Hosidius Geta (Cr. 407/2, 68 BC), down to an obverse of denarius of Tiberius. Furthermore, a reverse forgers' die for denarii of C. Marius Capito (Cr. 388/1a) was found in Ludești near Hunedoara.³⁰ Traditionally, all those finds in Romania are related with the Geto-Dacian 'state' of Burebista and his activities in ca. 60–45/4 BC.³¹ But what is the situation in Moesia across the Danube? It may well be very similar, as the finds demonstrate. It appears that the local manufacture of Republican denarii under Burebista was organized on the southern bank of the Danube too.³²

Therefore, if we dismiss all the dies of Republican and Mark Antonian types (nos. 4, 8–11 above) found in Moesia as undisputed forgers' dies (*transfer dies*) for producing local copies of *denarii*, how should we interpret the early Imperial dies (Augustus and Tiberius) in question?

Both Augustan dies in Sofia Archaeological Museum (nos. 1 and 2) have been labeled 'forgers' by Ph. Le Gentilhomme yet in 1946³³ and then called "*de fabrique barbare*" by J.-P. Giard in the catalogue of the Paris numismatic collection.³⁴ But what can their geographic and historical context tell us?

Die no. 1 above (fig. 1a-b) for coins struck in 15–13 BC originates from 'Voyvodin Dol' – a locality in the Vratzata gorge in the Stara Planina / Balkan mountains / *Haemus*, a kilometer west from Vratsa.³⁵ This is not far from the argenteriferous lead ores at Zgorigrad (chalcopyrite in oxidized surface) which was the scene of intensive Roman exploitation.³⁶ Recently a Thracian and Late Antique fort has been excavated in the Vratzata pass only 100–200 m east from the actual place of discovery of this die.³⁷ The adjacent region on the eastern side has yielded a number of Republican

denarius hoards closing in the late 40–30s BC (such as Moravitsa, Vratsa 'Starata Mogila', 'Haemus-Vratsa' 2006, etc.).³⁸ Additionally, the die from Vratsa was deliberately hammered with a chisel in the field (fig. 1a), apparently in an attempt to destroy it. Upon close inspection of the die surface it appears that a few small spots of silver are still stuck into Augustus' portrait.

Die no. 2 for Augustan type officially struck at uncertain Spanish mint in 17–16 BC – is visibly cut/engraved, not cast (fig. 2a-b). It has been found near Dolna Dikanya on the course of the ancient road *Serdica – Pautalia – Scupi*, which was certainly in use during the march of M. Licinius Crassus, the proconsul of Macedonia, in Western Thrace and to the Danube in 29–28 BC³⁹, if not earlier. It is hard to believe that a valuable and intact die would be easily discarded, if not enforced by an emergency. Not far from its provenance (only 1.5 km to the north) along the same road (still the shortest way from Sofia to Skopje), in 2001 hoard of about 250 Republican denarii was unearthed, reportedly closing with issues of Caesar and Mark Antony. Unfortunately, it was immediately dispersed among private persons and collectors, and is not available for study. However, its closing date should be set around the 30s BC according to the information available.⁴⁰ To the north of Dolna Dikanya lies Bosnek in South Vitosha with its well known gold placer and iron workings.⁴¹

Therefore, it seems possible to see both dies above within the Roman military context of the period. At that time Moesia experienced rapid re-organisation, and there was an intensive Roman military presence (pre-provincial territory with a governor (Μυσία ἄρχων), as early as AD 6 during the Pannonian revolt).⁴²

3. An attempt for conclusion

In my opinion, both dies of Augustus are direct evidence for the wartime coinage of the Roman generals of the Augustan-Tiberian era, being found outside of the context of the established mints. The same applies for die no. 7 – for denarii of Tiberius, reportedly found in the area of *Oescus*. As it is known, *Oescus* has been an early Imperial military camp, the seat of *legio V Macedonica* since AD 6–9.⁴³ Three finds listed above should be connected to the authority of the so-called *imperium*, including the right to strike coins while in a military march. Consequently, it is not surprising if the dies from Moesia are regarded as the dies of provisional military mints.⁴⁴ A similar explanation was proposed by Manov.⁴⁵ Furthermore, a die for Tiberius denarii (again for *RIC I*² 25–30) was found in 2004 during archaeological excavations

²⁸ LUPU 1967, 101–110, pls. 5–7; CHIȚESCU 1981, 57, 316, pl. 1.1–10; CRAWFORD 1974, p. 562, notes 1–2; see now MALKMUS 2008, 119–120, nos. V12b – V12-o.

²⁹ GLODARIU *ET ALII* 1992, 57–68, pls. 4–5; MIHAILESCU-BIRLIBA 1990, 98 = MALKMUS 2008, 121–122, nos. V–12v – V–12z.

³⁰ See CHIȚESCU 1981, 316, pl. 1, 11.

³¹ CHIȚESCU 1981; LOCKYEAR 2008, 158, 160, and table 2.

³² Recently a review of all known imitations of Republican denarii in DAVIS/PAUNOV 2012, 389–413, esp. at 399–401.

³³ LE GENTILHOMME 1946, viii.

³⁴ GIARD 1976, 24–25.

³⁵ ŠAŠEL 1976, 134.

³⁶ RADOSLAWOFF 1919, 16; DAVIES 1935, 224; DAVIES 1938, 414; GAUL 1942, 401, n. 26.

³⁷ Excavations were carried out by Dr. Narcis Torbov (Regional Historical Museum in Vratsa) in 2007–2013. The site produced a single Republican denarius of 112/1 BC (Crawford 1974, no. 297/1a) and three bronzes of Philippi (type *RPC* 1651), so far unpublished, catalogued by the present author.

³⁸ For relevant hoard details see in PAUNOV/PROKOPOV 2002, and now in PAUNOV 2013.

³⁹ DIO 51.23–25; LIV. *Perioch.* 134–135; FLOR. 4.12.13–16; overview in GRUEN 1996, 174; SYME 1999, 195, 200–202.

⁴⁰ Further details in PAUNOV 2014, hoard no. 67 (Staro selo).

⁴¹ In general see GAUL 1942, 399–400 with map on 402, fig. 1, no. 11; details in VELKOV 1957, 163–168; GEROV 1961, 251.

⁴² DIO 55.28, 2; 55.29, 3; and 30.4. More details in SYME 1999, 207–208.

⁴³ See FILOW 1906, 7–9; KABAKCHIEVA 1996, 95–98; KABAKCHIEVA 2000.

⁴⁴ As suggested in CHIȚESCU 1981, 57; BOJKOVA 1984, 19.

⁴⁵ MANOV 2002, 1118–1121.

in a layer datable to AD 45, under a military officer's house in the legionary camp Vindonissa (Windisch in Switzerland)⁴⁶, fitting in well with the above stated hypothesis.

Thus, it may be presumed that the discussed dies from Moesia, if not official, were used semi-officially⁴⁷ by the Roman military administration to manufacture coins in/around the Moesian legionary camps (especially *Oescus*; see find no. 5). This may be true for the period in the reign of Tiberius which resulted in the famous shortage of credit and currency (*inopia rei nummariae*) in AD 33 (Tacitus, *Ann.* 6.16–17; Suet. *Tib.* 48.1; Dio 58. 21.1–5).⁴⁸

The concentration of dies in Moesia is surprising and unexpected. Since there is no reason to think that the population there was more “criminal” than anywhere else, we are left with two possibilities. Either the dies were produced in “normal” numbers here, but for unknown reasons they have tended to survive, or these are not forgers' dies at all. In the latter case, a “military mint” explanation seems plausible.

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⁴⁶ Published in DOPPLER/PAULI-GAB/PETER 2005, 42–45, fig. 3a-b; see also MALKMUS 2008, no. V–27b.

⁴⁷ M.H. Crawford admitted that “there is no universally valid way of distinguishing between forgers' dies and official dies” (CRAWFORD 1974, 577).

⁴⁸ Discussion in RODEWALD 1976, 1–16; WOLTERS 2012, 348–352, note 4.

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