The City Museum Sisak has obtained a hoard of imitations of the drachms of Apollonia and Dyrrhachium allegedly found in the nearby Odra Sisačka in the early 1980s. The coins are most likely subaerati, poorly executed with no legends on the reverses (save for the abbreviated city name DYP) and two legends on the obverses (one nonsensical). Curiously, their die axes are aligned and oriented to 12h, and they were produced by four different die combinations. The distribution of both the original coins of Apollonia and Dyrrhachium and their imitations suggests that this hoard was almost certainly produced, and most likely also deposited, in the areas further to the east. The hoard is only the second example of a collective find consisting exclusively of imitations of the drachms of Apollonia and Dyrrhachium (alongside the Romanian Troianul hoard), and the metrological analysis and comparative study alongside other similar hoards from Romania and Hungary has provided the means of dating the hoard in the early second half of the 1st c. BC.

Key words: Apollonia; Dyrrhachium; imitations; Odra Sisačka; Siscia; coin circulation / Ključne riječi: Apolonija; Dirahij; imitacije; Odra Sisačka; Siscija; optjecaj novca

The circumstances of the find and the description of the hoard

If authentic, the hoard reportedly found in the immediate vicinity of Sisak would almost certainly belong to the coin circulation of the pre-conquest period – i.e. the period prior to the Roman capture of the Late Iron Age settlement of Segest(ic)a. The issue of authenticity revolves around the unreliability of the report relating the actual find-site.1 The find in question is a hoard of imitations of the drachms of Apollonia and Dyrrhachium reportedly from Odra Sisačka (ca. 1800 m as the crow flies from the north-western corner of ancient Siscia), ‘representing a chance find of a hoard, according to the finder’s [or finders’] report’.2 My attempts to obtain more information on the circumstances of the find from the intermediary responsible for the City Museum Sisak’s acquisition of the hoard remained futile, which speaks volumes on the reliability of the information he presented during the transaction. According to the memories of Zdenko Burkowsky, at

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1 This paper is an enlarged and updated version of the text published in Bilić 2020: 157–159. I would like to thank the GMS director Vlatko Čakširan and the GMS curators Iskra Baćani, Rosana Škrgulja and Tea Tomoš Barisić for giving me the opportunity to study and publish this hoard. My thanks also extend to Zdenko Burkowsky, a former GMS curator, who first drew my attention to the hoard, and to Ivan Drnić, my colleague at the AMZ, who motivated me to study and publish it.

Map 1. Yellow dashed rectangle: the assumed position of the Augustan-Tiberian military camp (after Drnić 2018); yellow dotted irregular oblong: Roman Siscia (after Demicheli et al. 2012); yellow dashed ellipse: Roman 1st–2nd c. structures and small finds excavated in 2010; blue ellipse: the north-western necropolis of Siscia (after Demicheli et al. 2012); blue dashed ellipse: 1st–2nd c. Roman necropolis; red dashed circle: the Late Iron Age settlement on the Pogorelac (after Drnić 2018); red dashed ellipse: the assumed position of the Late Iron Age settlement on the left bank of the Kupa (after Drnić 2018); red circle: the assumed find-site of the Odra hoard (made by T. Bilić, 2020) / Karta 1. Pravokutnik isprekidanih žutih linija: pretpostavljen položaj vojnog logora iz augustovsko-tiberijskog razdoblja (prema Drnić 2018); izduženi nepravilni oblik omeđen žutom istočkanom linijom: rimska Siscija (prema Demicheli et al. 2012); isprekidana žuta elipsa: rimske strukture i pokretni nalazi 1.–2. st. otkriveni 2010.; plava elipsa: sjeverozapadna nekropola Siscije (prema Demicheli et al. 2012); isprekidana plava elipsa: rimska nekropola 1.–2. st.; crveni istočkani krug: mladeželjeznodobno naselje na Pogorelcu (prema Drnić 2018); isprekidana crvena elipsa: pretpostavljen položaj mladeželjeznodobnog naselja na lijevoj obali Kupe (prema Drnić 2018); crveni krug: pretpostavljeno mjesto nalaza ostave iz Odre (izradio T. Bilić, 2020.)
the time a curator at the Museum, the hoard was found during the construction of a shed in Odra, more precisely, in the part of the village nearest to Sisak, i.e. at its easternmost part.³

The City Museum Sisak at present keeps 69 coins from this hoard. All coins appear to be *subaerati* (silver-coated coins with a copper or bronze core or coins made from a copper-silver alloy of an unknown ratio),² and were produced by three obverse dies (with one of these appearing in two variants) and four reverse dies. Two die combinations share a single obverse die, with (type 1) or without (type 1A) the (nonsensical) inscription ΣΤΙΠ, while their reverse dies are different.⁵ The reverses of these coins imitate Dyrrhachian drachms, which also applies to another die combination with 23 pieces (type 2).⁶ All three combinations bear an inscription ΔYP on the reverse and depict a cow on the obverse turned left. This particular orientation of the cow is characteristic of late Apollonian drachms, which opens the possibility that we are here dealing with hybrids; that is, it is possible that the obverses were imitating precisely the late Apollonian drachms. The reverse of the last of these three combinations has some symbols in the field to the left and right of the central motif. These symbols are reminiscent of similar symbols (club, spear tip, bow, lizard) appearing on Dyrrhachian (and Apollonian) staters much earlier than drachms. The flans on which this type was struck are somewhat larger (range 18,5–23 mm, average diameter 20,75 mm) in comparison to the flans of the remaining three types. With these only two flans approximate 20 mm, while all are in the range of 16–20 mm with an average diameter of ca. 17,5 mm and a median diameter of 18 mm. The last type of imitations or counterfeits (type 3) emulates an Apollonian drachm bearing the name of the mint magistrate ΝΙΚΩΝ and a symbol in the exergue perhaps imitating caduceus – a symbol appearing on Dyrrhachian (and Apollonian) staters much earlier than drachms. The flans on which this type was struck are somewhat larger (range 18,5–23 mm, average diameter 20,75 mm) in comparison to the flans of the remaining three types. With these only two flans approximate 20 mm, while all are in the range of 16–20 mm with an average diameter of ca. 17,5 mm and a median diameter of 18 mm. The last type of imitations or counterfeits (type 3) emulates an Apollonian drachm bearing the name of the mint magistrate ΝΙΚΩΝ and a symbol in the exergue perhaps imitating caduceus – a symbol appearing on the original drachm of this type – on the obverse together with a cow turned right (on original drachms it is actually turned left), dating from the 60s BC or somewhat earlier;⁷ it appears that the reverse depiction on this type was derived from the reverse die of the preceding type rotated 90°, including the – now stylized – symbols to the left and right of the central motif.

3 Burkowsky, pers. comm., 2019. At a position immediately next to the right bank of the Odra, i.e. at the easternmost part of the modern village, some Roman structures and small finds (1st–2nd c. ware, coins from the 1st c. onwards) were excavated (Baćani 2010: 313–314). At the same time, the remains of a 1st–2nd c. necropolis were found on the left bank of the Odra (Baćani 2009: 291–292). No pre-Roman material was found at either of these positions.

4 The term ‘*subaerati*’ will be used throughout this paper heuristically in both senses due to the lack of metallurgical analysis of the coins.

5 The die combination with the obverse inscription: inv. nos. 1189–1190, 1195–1199, 1202–1206, 1243–1246, 1250; the die combination without the obverse inscription: inv. nos. 1188, 1191–1194, 1200, 1255–1256.

6 Inv. nos.: 1201, 1207–1226, 1252–1253.

7 Inv. nos.: 1227–1242, 1247–1249, 1251, 1254. For the date see Petrányi 1995–1996: 6 (series -18, 66/65 BC). Picard, Gjongecaj 2000: 159 (no. 60), date this emission to the third phase of Apollonian drachms (120/100–80/70 BC). The original drachms of this type are rather rare; a total of 17 pieces are known from the hoards of Dieci 1, Dieci 2, Bobaia and Taşad in Romania and Rupci, Sadovec and ‘NW Bulgaria’ in Bulgaria, nowhere exceeding five pieces (Petrányi 1995–1996: 6; Picard, Gjongecaj 2000: 159).
<table>
<thead>
<tr>
<th>GMS inv. no.</th>
<th>obv.-rv. combination*</th>
<th>weight (g)</th>
<th>diameter (mm)</th>
<th>axis</th>
<th>no. on plates</th>
</tr>
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<td>12</td>
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<td>19.5</td>
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<td>35</td>
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<td>2.86</td>
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</table>
The coins from the Odra hoard display a rather unusual technological characteristic. All drachms were struck with almost no deviation between the obverse and reverse orientations, i.e. with an axis orientation of 12h/0°. This is somewhat unusual for this type of coins. Twenty-three coins were aligned precisely at 12h/0° (with a tolerance of ca. 5° during measurement), 36 coins deviate ca. 10° (always in the counterclockwise direction), while ten coins deviate ca. 20° (also always in the counterclockwise direction). For this level of precision the craftsman had to align the dies mechanically, for example by hinged dies, or with some other device, which is a rather unexpected technological proficiency in a LIA counterfeiter; otherwise, some other, less precise, method of marking the die alignment could have been used, for which a clear motivation is difficult to discern.8

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8 For the methods of obtaining fixed die alignments see Macdonald 1906: 178; De Callataj 1996: 90–96; Haymann, Hollstein 2016: 386, 391. Mechanically fixed dies did not appear before the 3rd c. AD; prior to this period a deviation of ca. 1h (30°) in both directions was tolerated (De Callataj 1996: 93; Haymann, Hollstein 2016: 391). The coins from the Odra Sisačka hoard, with the maximal deviation of 20°, fit into this category of material.
Moreover, contemporary numismatic studies emphasize the value of the appearance of aligned dies as an ‘authenticity test’ for the specimens from a certain emission, whether in relation to ancient or modern counterfeits.\textsuperscript{9} At the same time, a study focusing on this particular issue has made clear that the original drachms of Apollonia and Dyrrhachium in general do not show an inclination towards the use of aligned dies; the latest emissions of Apollonian drachms, showing a certain inclination to a die axis orientation of 6h, might prove to be an exception to this rule.\textsuperscript{10} My analysis of the drachms of Apollonia (204) and Dyrrhachium (181) kept at the Zagreb Archaeological Museum partially supports de Callataj’s conclusion, but not without certain qualifications.\textsuperscript{11} In the corpus of analysed coins only the orientations to cardinal directions (12, 3, 6, 9 h) surpassed 10% of the total number of coins. Moreover, all eight cardinal orientations (four in Apollonian and four in Dyrrhachian coins) surpassed the 10% share. The share of orientations to cardinal directions was 58.56% (Dyrrhachium) and 51.97% (Apollonia). These percentages suggest that some orientations were preferred, while others were used much less frequently. If the tolerance of $1h/30^\circ$ in relation to an ideal orientation of 12h is accepted, 25.49% Apollonian coins and 19.88% Dyrrhachian are aligned to this particular direction. Furthermore, the orientations to sectors (‘12’, ‘3’, ‘6’, ‘9’) defined in these terms are rather evenly distributed: Dyrrhachium: 19.88% – 25.96% – 20.99% – 33.14%; Apollonia: 25.49% – 26.96% – 25.98% – 21.56%. These percentages make the idea of a dominant orientation to 12h highly unlikely. Thus the supposition that the aligned dies were used by the counterfeiter in order to adjust his product to original coins has to be discarded. In any case, the quality of execution of these coins, especially the reverses, would certainly be a more obvious criterion in determining their authenticity, much more than the somewhat abstract die orientation. Some coins are cracked on the rim, suggesting that they were struck when the flan has already cooled off.\textsuperscript{12}
Comparanda

The imitations of drachms from the Odra Sisačka hoard are somewhat reminiscent of the corpus of imitations or counterfeits kept in the Museum of Slavonia in Osijek, and which were probably found in the area of Osijek. Their production is attributed to the Scordisci, and they are made of poor-quality silver, silver-coated bronze or simply bronze, most often imitating the latest emissions of Apollonian and Dyrhhachian drachms, which are indeed the most numerous types found in the region. One bronze (originally suberated?) imitation of a Dyrhhachian drachm is serrated, reflecting the influence of Republican denarii, which circulated in the area partially contemporaneously with the Adriatic drachms (see below). This particular coin imitates the Dyrhhachian drachm with the legend MENIΣKOΣ on the obverse, which was struck in the second half of the 50s BC, so it could not have been made prior to this date. At the same time, the Odra Sisačka imitations can be compared with the hoard of 417 subaerati of Dyrhhachian drachms, as well as Apollonia/Dyrhhachian hybrids (Dyrhhachian obverse/Apollonian reverse), from Troianul in Muntenia. Along with the Odra hoard, the Troianul hoard is the only find of this type that consists solely of imitations/counterfeits. It was found during ploughing in a ceramic vessel; soon afterwards a trial trench was excavated at the find site, which yielded a small number of additional coins. In this way, the authenticity of this find seems indisputable. All coins in this hoard were struck by ten obverse and only four reverse dies, but as much as 401 coins were struck by only two reverse dies. The legends on the obverse and, especially, reverse are full of mistakes and often nonsensical, but the depictions – especially reverse – are more faithful to the originals in comparison with the Odra pieces. Unfortunately, the die axis orientations of the coins from this hoard are not recorded, so the Troianul hoard cannot be compared in this particular way with the unusual technological aspect of the production of the Odra drachms noted above.

Metrological considerations

The weights of Apollonian and Dyrhhachian drachms can be used as an indication of the authenticity of coins and, to some extent, as the chronological indicator for separate emissions. The average weight of the Odra Sisačka drachms – in the range of 2,15–3,94 g – is precisely 3,00 g, with the average weight of type 1 drachms being 3,18 g, that of...
type 1A 2,77 g, type 2 3,01g and type 3 2,92 g. The median weight of drachms is 3,05 g if all specimens are included, but 3,02 g if extremely light (2,15 g) and extremely heavy (four pieces heavier than 3,67 g) coins are excluded. The median weight of type 1 is 3,30 g (3,08 g if two extremely heavy coins are excluded); the median weight of type 1A is 3,14 g (2,67 g if one extremely heavy coin is excluded); the median weight of type 2 is 3,12 g (2,93 g if one extremely heavy coin is excluded); the median weight of type 3 is 2,86 g (3,02 if one extremely light and two extremely heavy coins are excluded). The vast majority of coins (64, 92.75%) falls in the weight range from 2,45 to 3,60 g (with one lighter and four heavier pieces), while the largest number of coins (8) lies within the weight range of 3,00–3,05 g.

<table>
<thead>
<tr>
<th></th>
<th>average weight</th>
<th>median weight</th>
<th>median weight without extremes</th>
<th>range (&gt;90%)</th>
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<td>3,05 g</td>
<td>3,02 g</td>
<td>2,45–3,60 g (&gt;90%)</td>
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<td>3,18 g</td>
<td>3,30 g</td>
<td>3,08 g</td>
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<td>2,77 g</td>
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<td>2,67 g</td>
<td></td>
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<td>3,12 g</td>
<td>2,93 g</td>
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<tr>
<td>NIKON</td>
<td>3,32 g</td>
<td></td>
<td></td>
<td>3,18–3,46 g</td>
</tr>
</tbody>
</table>

Table 2. The weights of the drachms from the Odra hoard by types and the weight of the drachms issued by magistrate Nikon / Táblica 2. Težine drähmi iz odanske ostave po tipovi te težina drähmi magistrata Nikona

Although an ideal official weight standard certainly existed, the actual weights of Apollonian and Dyrrhachian drachms were in practice inconsistent, whether between separate emissions or between individual coins of the same emission.19 Thus the median weight of Apollonian drachms is between 2,92 and 3,30 g (range from 2,89 g to 3,46 g in a 95% confidence interval); the lower limit advances to 3,13 g if the last three emissions

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19 Meta 2012: 22; 2015: 6 and Ujes-Morgan 2012: 368 note the ideal weight of drachms as ca. 3,40 g, Meta 2015: 185 that of ca. 3,30/3,40 g, while Picard, Gjongecaj 2001: 248–249 recognize a weight range of 3,00–3,20 g.
are excluded. The median weight of the coins (15 in all) issued by the mint magistrate Nikon, perhaps the model for the Odra Sisačka type 3 coins, was 3.32 g, with the lightest piece of 3.18 g and the heaviest of 3.46 g. At the same time, the median weight of Dyrhrachian drachms was between 2.71 and 3.37 g (range from 2.44 g to 3.69 g in a 95% confidence interval); the lower limit advances to 3.15 g if the last five emissions are excluded, while in this case the heaviest coin in a 95% confidence interval rises to 3.06 g. It appears that the weights of the latest emissions of Apollonian and Dyrhrachian drachms are somewhat reduced, but this is somewhat compromised by the existence of specimens of late Apollonian drachms from the weight range of 2.20–2.50 g and those of ca. 3.30 g of the same emission.

In terms of hoards, the original Apollonian drachms from the Drăgești hoard encompass a weight range of 2.50–3.00 g, that from the Tașad hoard are mostly lighter than 3.00 g, while the pieces from the Dieci 2 hoard are all heavier than 3.00 g; the greatest number (249, 91.54%) of the original drachms of Apollonia and Dyrhrachium from the Pânađe hoard falls in the weight range of 3.06–3.45 g. Since the weights of the original drachms vary significantly, it does not seem prudent to assert that the imitations of Apollonian drachms are reduced in comparison to the originals.

The weights of imitations themselves also show some significant variations. Thus the imitations and counterfeits from the Museum of Slavonia, perhaps found in the area of modern Osijek, have an average weight of 2.58 g, in the range of 2.0–3.6 g. The median weight of these coins is 3.0 g, but if the two heaviest coins of 3.6 g, which stand out considerably with their weight, are excluded, the median weight is 2.6 g. Twelve out of the total of 15 coins are lighter than 3.0 g (more precisely, they fall in the range of 2.0–2.6 g). On the other hand, one Apollonia (obv.)/Dyrhrachium (rv.) hybrid and the imitations of Apollonian and Dyrhrachian drachms from the Doboz hoard are all heavier than 3.00 g (3.01–3.73 g), while the imitations of Apollonian drachms of poor silver from the Sacalasau Nou hoard fall in the weight range of 2.05–3.68 g. The imitations of Dyrhrachian drachms of better quality in general weight between 3.11–3.40 g, while those of lesser quality encompass the range of 2.11–3.10 g, with the Dyrhrachian subaerati weighing between 2.11 and 3.00 g. This weight distribution shows how difficult it is to claim that the imitations are reduced in weight in comparison to the original products of the two Adriatic mints.

23 Petrányi 1995–1996: 8–9 for Apollonia from 59/58 BC onwards and for Dyrhrachian issues from 60/59 BC onwards, Petrányi 1995–1996: 11, cf. https://asklapiadas.ancients.info/05dDyrIssues.html (Meta 2015: 118–130, 232–238 dates the last (V) phase of Dyrhrachian mint to 80/70–60/55); Meta 2015: 204 with Figs. 11–12, 236 with Fig. 16 on p. 237, for Dyrhrachian phase V.
25 Sășianu 1987: 213. With respect to the Drăgești hoard, this applies to 45 out of 68 drachms (66.2%; Sășianu 1980: 123) of the emissions selected by Sășianu; but of the total of 123 original drachms in the hoard, only 66 (53.66%) weigh less than 3.00 g. For the Tașad hoard see Sășianu 1980: 173; for the Dieci 2 hoard see Sășianu 1980: 112–113.
26 Mitrea 1981–1982: 43; Conovici 1986–1991: 55, Fig. 11 (265 pieces, 95.32%).
30 Sășianu 1980: 146–147; 1987: 216 (where it is claimed that all imitative drachms from this hoard are lighter than 2.70 g, which is contradicted by the data published in the earlier publication).
As already mentioned, the Odra Sisačka hoard finds its best parallel in the Trojanul hoard, which makes a comparison with the weights of these subaerati of Dyrhrachian drachms and Apollonia/Dyrrhachium hybrids (Dyrhrachian obverse/Apollonian reverse) of utmost importance. The weights of subaerati hybrids (84) from the Romanian hoard lay within a range of 1,50–3,30 g. The majority of drachms (338, 83,05%) are in the weight range of 2,16–3,00 g (with 32 lighter and 37 heavier coins); the average weight of all coins is 2,59 g, while the largest number of drachms (41) is in the weight range of 2,46–2,50. However, contrary to our expectations, the comparison of the hoards from Odra and Trojanul reveals significant dissimilarities between the weight structures of these two hoards of Apollonian and Dyrhrachian subaerate hybrids. The average weight of the coins in these two hoards is significantly different (Odra 3,00 g : Trojanul 2,59 g), which also applies to their respective median weights (Odra 3,02 or 3,05 g ; Trojanul ca. 2,50 g). At the same time, the weight range of the coins from the Trojanul hoard – excluding the extreme specimens – is significantly lower in comparison to the weight range of the coins from the Odra hoard (Trojanul 2,16–3,00 g : Odra 2,45–3,60 g). Furthermore, the weight structure of the Odra hoard is more similar to that of the Čelopek (Kosovo) hoard, which consists mostly (>90%) of Apollonian drachms of the very late ΝΙΚΩΝΟΣ-ΣΩΣΙΚΩΣ emission (Petrányi -2, 50/49 BC = Picard, Gjongjecaj 74), and to several Romanian (Drăgești, Tașad) and Hungarian (Doboz, near the Romanian border, Békés county) hoards. The largest number of coins from these hoards is represented by the latest Apollonian emissions (Drăgești: Petrányi -9 to -2; Tașad: Petrányi -10 to -2; Doboz: Petrányi -9 to -1), i.e. the period 58–48 BC according to Petrányi or 80/70–48 BC according to Picard, Gjongjecaj 2000, 156.

The median weight of the coins from the Odra hoard (3,02 or 3,05 g) is similar to the median weight of the Čelopek hoard (ca. 2,95 g) and the median weight of the coins from the Doboz hoard (3,155 g, or 3,06 g if the heaviest and the lightest coins, which deviate significantly from the rest, are deduced); it is also somewhat similar to the median weight of the coins from the Drăgešti hoard (2,86 g if the four extremely heavy and the same number of extremely light coins are excluded) and the Tașad hoard (2,825 g if the two extremely light and one extremely heavy coin are excluded).

At the same time, the weight range of the coins from the Odra hoard (2,45–3,60 g, >90%) is also similar to the weight ranges of the hoards from Čelopek (2,55–3,35 g, >95%), Doboz (2,80–3,50 g, >95%), Drăgești (2,55–3,33 g, >90%) and Tașad (2,50–3,15 g, >95%). The Odra hoard is the most similar to the Drăgešti hoard in terms of weight structure

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33 Mitrea 1981–1982: 41, has a tally of 336 coins in the range of 2,20–3,00 g, but his Fig. 2 on p. 40 does not bear this out (the actual number is 326).
35 The Odra hoard is similar in this particular aspect to the hoards from Doboz (average weight 3,13 g; Biró Sey, Goldman 1978: 231–233), Drăgești (average weight 2,94 g; Săsianu 1980: 122–124) and Tașad (average weight 2,86 g; Săsianu 1980: 173–174). It shares some other structural characteristics with these hoards, of which more will be said in the remainder of this text. The average weights of the coins in the Dieci 2 (3,18 g; Săsianu 1980: 112–119) and Pećinci (3,16 g; Popović 1978: 9–17) hoards are also worthy of comparison.
36 Popović 1976: 175–179; the hoard also contained two imitations, one each of Apollonia and Dyrhrachium.
37 The Romanian hoards Cermei and Talpe should be added to this group of hoards, but since individual coin weights are not available for these hoards, they will not be discussed here. Conovici 1986–1991: 52, Fig. 6 is a combined analysis of these five hoards.
38 Petrányi 1995–1996: 6. This also applies to the Cermei hoard (Petrányi -9 to -3), which will not be analysed on the level of coin here.
39 Although Popović 1976 does not record the weights of individual coins, it is possible to read them off of his diagram (Popović 1976: 177, Fig. 2), although only in intervals of 0,05 g.
(see Figs. 5–8) and, in a somewhat lesser measure, to the hoards from Doboz and Taşad, while the Čelopek hoard is somewhat different from these four hoards in this respect.

The Doboz hoard consists mostly of drachms of Apollonia (133), together with several Dyrhhachian drachms (4), but also contains three imitations of Apollonia and a single imitation of a Dyrhhachian drachm, with a single hybrid. The hoard from Drăgești also consists mostly of drachms of Apollonia (127), but also contained five imitations. Similarly, the Taşad hoard mostly contained Apollonian drachms (64), along with several Dyrhhachian drachms (4) and a single imitation of an Apollonian drachm. The somewhat earlier Dieci 2 hoard can be compared with these hoards; it consisted of earlier emissions of Apollonian and Dyrhhachian drachms in comparison with these other hoards. Together with 52 drachms of Apollonia and 201 drachms of Dyrhhachium (with eight indeterminate drachms), the hoard also contained two Dyrhhachian subae-rati and 43 Dyrhhachian and a single Apollonian imitation. The median weight of the coins from this hoard is 3.10 g (excluding the six lightest coins), while they fall in the range of 2.65–3.55 (>95%). These values are comparable with the Odra numbers, as well as with similar hoards from Romania and Hungary, but this particular hoard belongs to an earlier chronological horizon. It also differs from the hoards enumerated above in its weight structure, which is clearly displayed in the parallel histograms of the weights of the Apollonian and Dyrhhachian drachms from the Odra hoard and the weights of drachms from other hoards discussed in this section (Figs. 5–9).

Finally, the median weight, as well as the weight range, of the coins from the Pećinci hoard (Syrmia) is comparable to the aforementioned Romanian and Hungarian hoards.

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40 Biró Sey, Goldman 1978: 231–233. A Republican denarius was also contained in the hoard, RRC 282.2 of 118 BC (Biró Sey, Goldman 1978: 231, no. 1).
41 Sășianu 1980: 122–124. Three Republican denarii were also contained in the hoard, RRC 250.1, 328.1 and 352.1a of 132, 100 and 85 BC, respectively (Sășianu 1980: 124, nos. 134–136).
Furthermore, this hoard is composed mainly of the latest issues of the Dyrhhachian mint (Petrányi -10 to -2 = Meta V/84–86), dated to 57–49 BC by Petrányi or 80/70–60/55 BC by Meta,44 together with a small number of the latest issues of the mint of Apollonia (Petrányi -9 to -3), dated to 56–50 BC according to Petrányi or 80/70–48 BC according to Picard, Gjongjecaj 2000, 156, and also four imitations of Dyrhhachian drachms.45 However, the weight structure of the Pećinci hoard is significantly different from the weight structure of the coins from the Odra hoard (Fig. 10).

<table>
<thead>
<tr>
<th></th>
<th>average weight</th>
<th>median weight</th>
<th>median weight without extremes</th>
<th>range (&gt;90%)</th>
<th>A</th>
<th>D</th>
<th>I</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>Odra</td>
<td>3,00 g</td>
<td>3,05 g</td>
<td>3,02 g</td>
<td>2,45–3,60 g</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Čelopek</td>
<td>ca. 2,95 g</td>
<td></td>
<td></td>
<td></td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Doboz</td>
<td>3,13 g</td>
<td>3,155 g</td>
<td>3,06 g</td>
<td>2,80–3,50 g</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Drăgești</td>
<td>2,94 g</td>
<td>2,86 g</td>
<td>2,55–3,33 g</td>
<td></td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Tașad</td>
<td>2,86 g</td>
<td>2,825 g</td>
<td>2,50–3,15 g</td>
<td></td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Dieci 2</td>
<td>3,18 g</td>
<td>3,10 g</td>
<td>2,65–3,55 g</td>
<td></td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Pećinci</td>
<td>3,16 g</td>
<td>3,205 g</td>
<td>3,175 g</td>
<td>2,85–3,50 g</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
</tbody>
</table>

Table 3. The weights and composition of the Odra hoard in comparison with the hoards from Čelopek, Doboz, Drăgești, Tașad, Dieci 2 and Pećinci / Tablica 3. Pregled težina i sastava odranske ostave u usporedbi s ostavama Čelopek, Doboz, Drăgești, Tașad, Dieci 2 i Pećinci

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45 Popović 1978.
Tomislav Bilić: A hoard of drachms of Apollonia and Dyrrhachium from the City Museum Sisak
In this way the metrological analysis suggests that the Odra hoard can be dated to a period similar to the one to which the hoards from Doboz, Drăgeşti and Taşad (as well as Pećinci) belong, that is, after 48 BC. But it is important to emphasize that this method of determining chronological positions is very insecure and must be understood only as a tentative suggestion. The Odra hoard, together with its Troianul counterpart, is the only hoard of Apollonian and Dyrrhachian drachms that consists exclusively of imitations. They also share the characteristic of being of a very poor quality, both in terms of the quality of metal used for their production (subaerati) and the (un)faithfulness of die displays to the originals, especially the reverse dies. But while the Trojanul drachms are somewhat more faithful to the original representations – the reverses of the Odra drachms, except from the legend ΔYP, do not show any ambition to reproduce the original legends – the weights of the Odra coins are significantly larger and thus closer to the original drachms. The average and median weight, as well as the weight structure, of the Odra hoard is much more similar to several Romanian and eastern Hungarian hoards that consist of original drachms produced in the latest phases of the two Adriatic mints. These hoards, although dominated by Apollonian and/or Dyrrhachian drachms, also contained a smaller number of imitations (Čelopek 2, <0,5%, with 4 subaerati total of 1,26%; Doboz 5, ca. 3,5%; Drăgeşti 6, 4,4%; Taşad 1, <1,5%). Alongside Trojanul and Odra, the only hoard that contained a large number and proportion of imitations is the somewhat earlier Dieci 2 hoard with 46 subaerati and imitations, ca. 15% of the total number of coins. However, all imitations from these hoards, including those from the Trojanul hoard, attempt, however incompetently, to reproduce the legends from the original drachms. The lack of any ambition to this effect makes the counterfeiter of the coins from the Odra hoard a unique forger of Apollonian and Dyrrhachian coins.

Distribution and circulation

The distribution of drachms produced in the two Adriatic mints and their imitations supports the chronological positioning of the Odra Sisačka find reached by the metrological analysis of the hoard. Furthermore, the analysis of the distribution of this coinage suggests, but does not prove, the original provenance (in the meaning of find-site) of the hoard ‘from Odra Sisačka’ or the region in which the coins contained in the hoard were struck. Since the drachms of Apollonia and Dyrrhachium were almost completely replaced in the early second half of the 1st c. BC in Pannonia by the Roman Republican denarii, it can be presumed that their imitations or counterfeits appeared at least shortly prior to this event. This replacement could hardly have taken place much earlier, since the drachms of these two mints themselves arrived in greater numbers in this region only during the previous several decades of the 1st c. BC.47 In this sense, if the find-site of the ‘Odra’ hoard were authentic, it would belong to the margins of coin circulation in ancient Sisak in the period not long prior to the Roman conquest of the LIA settlement. But since there are legitimate doubts that these imitations or counterfeits were actually produced somewhere else, this find cannot be taken unequivocally as representing a testimony of the coin circulation in the area of Sisak in the Late Iron Age. It is important to emphasize that the drachms of Apollonia and Dyrrhachium were not included in the standard ancient coin circulation in the area of Sisak and north-western Croatia,48 which raises the question of the motivation of the hypothetical local counterfeiter.49 It seems more probable that these imitations or counterfeits were produced in the regions further to the east, i.e. in the territory of modern Romania, northern Serbia, eastern Hungary or northern Bulgaria, which is further supported by the distribution of the emission of the Apollonian drachm bearing the name of the mint magistrate ΝΙΚΩΝ on the obverse, as well as the distribution of imitations and counterfeits of the drachms of Apollonia and Dyrrhachium.50 Thus, taking into account the metrological and stylistic analysis, the most likely scenario is that the imitations were produced somewhere in the central or eastern Balkans area, probably in the 40s BC. But it is much more difficult to reconstruct how they arrived to the City Museum Sisak. If we are willing to put our trust in the words of the middleman by whose mediation the find arrived to the Museum, than we are obliged

47 For a review of opinions on this subject see Bilić 2014: 266–267, 273, 275–276; to the literature there cited one should add Meta 2012: 24–25, 29, 31; 2015: 223–225, 232–235, 260–267. Dizdar 2016: 42 suggests, on the basis of surface finds of the coins of Apollonia and Dyrrhachium on the site of Blato in Vinkovci, where the finds from Lt D1 period (i.e., prior to ca. 80 BC) are dominant, that these coins, together with Roman Republican denarii, arrived to southern Pannonia in a somewhat earlier period. By courtesy of Marko Dizdar I have had the opportunity to examine the photographs of the numismatic finds from the site of Blato, which do not support Dizdar’s hypothesis. I had a total of six coins of Apollonia and Dyrrhachium at my disposal, all of which are undoubtedly dated to the latest periods of activity of these mints, in the period corresponding in archaeological terms precisely to Lt D2. These are the drachms of Dyrrhachium Petrányi -7 and -6 (of 54 and 53 BC, respectively) = Meta V/86 (the latest emission of the last period of activity of Dyrrhachian mint 80/70–60/55 BC), drachms of Apollonia Petrányi -6 (two specimens) and -4 (53 and 51 BC, respectively) = Picard, Gjongjecaj 69 and 67 (the last period of activity of the mint of Apollonia, 80/70–48 BC), and one Apollonian hybrid (obverse Petrányi -9 of 56 BC = Picard, Gjongjecaj 70; reverse Petrányi -11 or -5 of 58 or 52 BC = Picard, Gjongjecaj 72–74; all Picard, Gjongjecaj emissions belong to the last period of activity of the mint of Apollonia, 80/70–48 BC).

48 Only four pieces were found in Sisak, one of which is a hemidrachm (Bilić 2017a: 460, 468, nos. 28–31), with mere two examples in the north-western Croatia outside Sisak, one of which is a bronze imitation (Bilić 2017b: 226, 239, nos. 8–9).


50 A distribution map of imitations and counterfeits of the drachms of Apollonia and Dyrrhachium is reproduced in Săşianu 1987: 211, Fig. 2.
to accept the modern Odra Sisačka, in the immediate surroundings of ancient Segest(ic)a/Siscia, as the find site of these imitations of drachms produced in the central or eastern Balkans. But if the distribution and area of circulation of Apollonian and Dyrrhachian drachms, as well as their imitations, is taken into account, that is, their almost complete absence from the area of south-western Pannonia, the central or eastern Balkans emerges as a more plausible region of origin of the hoard, i.e. the hoard would in this case have been deposited most probably somewhere in the region during or not long after the 40s BC. In this scenario Sisak would have been used as a well-known site that provided ‘legitimation’ of the find within the framework of south-western Pannonia.

Naturally, despite the almost total absence of drachms of Apollonia and Dyrrhachium and their imitations from the area of south-western Pannonia, the possibility that the coins from the Odra hoard were imported in the region during the Late Iron Age cannot be categorically discarded. In this scenario the Scordisci, the eastern neighbours of the carriers of the material culture of the eastern spread of the Mokronog group, would probably be the decisive agents in the production and/or the transfer of the coins from the Odra hoard from the regions further to the east. Indeed, the drachms of Apollonia and Dyrrhachium were an important feature of the coin circulation in the territory of the Scordisci (without raising the question of the function of these and other coins in the Scordiscan society, i.e. whether they were used as money or para-monetary objects), where a number of hoards and individual finds of this coinage were found. Also, as already mentioned, the imitations of these types of coins were undoubtedly present on the Scordiscan territory, more precisely, in the area of the modern eastern Slavonia. At the same time, some tangible relations existed between the inhabitants of Segest(ic)a/Siscia and the Scordisci in the Late Iron Age, including the appearance of the coins of the Scordisci in Siscia itself. It was previously proposed that the rare finds of the drachms of Apollonia and Dyrrhachium in Sisak should be understood as related to the contacts with the Scordisci. Also, a modest number of Tauriscan coins, who were the carriers of the material culture of the Mokronog group, was present in coin circulation in the Scordican area. From this perspective the immediate surroundings of Sisak cannot be completely discarded as the location of the deposition of the hoard, although it seems more likely that it was deposited and eventually recovered in the areas further to the east and that it only arrived to Sisak in the period immediately prior to its acquisition by the City Museum.

52 The hoard was associated with the Scordisci in Bilić 2015: 68; 2017a: 460–461.
53 See Ujes-Morgan 2012.
56 Bilić 2015: 68; 2017a: 460, 466. The same would apply to several Macedonian and Epirote bronze coins (Bilić 2015: 68; 2017a: 460).
57 Bilić 2012: 362, 364, 365, Fig. 3; 2017a: 462–463.
Tomislav Bilić: A hoard of drachms of Apollonia and Dyrrhachium from the City Museum Sisak
Plates I-IV. The coins from the Odra hoard (photos by I. Krajcar, 2021) / Table I-IV. Kovance iz ostave iz Odre Sisačke (fotografije I. Krajcar, 2021.)
LITERATURE / LITERATURA


Mitrea 1981–1982


Paunov 2013


Petrányi 1995–1996


Picard, Gjongecaj 2000


Picard, Gjongecaj 2001


Popović 1976


Popović 1978


Popović 1987


Rant 2000


Sășianu 1980

Alexandru Sășianu, Moneda antică în vestul şi nord-vestul României, Muzeul Țării Crișurilor, Oradea, 1980.

Sășianu 1987


Šašel-Kos 1997


Ujes-Morgan 2012

SAŽETAK

Ostava imitacija drahmi Apolonije i Dirahija iz Gradskog muzeja Sisak

Gradski muzej Sisak nabavio je tijekom ranih 1980-ih ostavu imitacija drahmi Apolonije i Dirahija navodno pronađenu u obližnjoj Odri Sisačkoj. Kovanice su najvjerojatnije suberati, loše su izrađene, bez legendi na reversima (osim skraćenog oblika imena grada ΔYP) i s dvije legende na aversima, od kojih je jedna besmislena. Neobično je to što su orijentacije osi poravnate prema 12h, a sve kovanice su izrađene sa svega četiri kombinacije pečata. Distribucija originalnih kovanica Apolonije i Dirahija, kao i njihovih imitacija, sugerira da su drahme iz ove ostave gotovo sigurno izrađene, a vjerojatno i odložene, u područjima istočnije od Panonije. Ostava je tek drugi skupni nalaz koji se sastoji isključivo od imitacija Apolonije i Dirahija (uz ostavu iz rumunjskog Troianula), a metrološka analiza ostave, kao i usporedba s drugim sličnim ostavama iz Rumunjske i Mađarske, omogućila je njezino datiranje u ranu drugu polovicu 1. st. pr. Kr.