STUDIES IN HONOUR OF ARNOLD SPAER

Edited by: DAN BARAG AND BOAZ ZISSU

THE ISRAEL NUMISMATIC JOURNAL
VOL. 17
JERUSALEM 2010
CONTENTS

9  DAN BARAG AND BOAZ ZISSU: A Tribute to Arnold Spaer
11  A Bibliography of Arnold Spaer

15  CATHERINE LORBER AND ARTHUR HOUGHTON: An Early Seleucid Bronze Hoard
34  DAVID HENDIN: Hasmonean Coin Chronologies: Two Notes
39  RACHEL BARKAY: The Coinage of the Nabataean King Malichus I (59/58–30 BCE)
48  ZOHAR AMAR: The Shewbread Table on the Coins of Mattathias Antigonus: A Reconsideration
59  YOAV FARHI, URI DAVIDOVICH, YUVAL GADOT, AND ODED LIPSCHITS: The Ramat Rafael Hoard of Tyrian Shekels
77  YINON SHIVTIEL, BOAZ ZISSU, AND HANAN ESHEL: The Distribution of Coins of the Jewish War against Rome in Galilee and Phoenicia
88  RONNY REICH: A Note on Coins from the First Revolt against Rome Discovered at Carnuntum, Austria
91  HANAN ESHEL, BOAZ ZISSU, AND GABRIEL BARKAY: Sixteen Bar Kokhba Coins from Roman Sites in Europe
98  ROI PORAT, EHUD NETZER, YAAKOV KALMAN, AND RACHEL CHACHY: Bar Kokhba Coins from Herodium (Hebrew University Expedition)
106  DAN BARAG: Halved Bronze Coins from the Bar Kokhba War
113  BOAZ ZISSU, HANAN ESHEL, BOAZ LANGFORD AND AMOS FRUMKIN: Coins from the Bar Kokhba Revolt Hidden in Me’arat Ha-Te’omim (Mușhâaret Umm et Tûeîmîn), Western Jerusalem Hills
148  ROBERT DEUTSCH: A Note on a Medallion of Antoninus Pius from Neapolis: The Largest Medallion Minted in Palestine
151  AVNER ECKER: The Coinage of Jaffa in the Roman Period
YOAV FARHI: City Coins from Roman Palestine Made of Lead and Comparable Materials

EITAN KLEIN: The Hercules Relief (Oscillum?) from Khirbet el-Karmil Reconsidered

D. M. METCALF: Some Byzantine Lead Seals of Scholastici

ALLA KUSHNIR-STEIN: Four Inscribed Lead Weights from the Collection of Arnold Spaer

NIKOLAUS SCHINDEL AND WOLFGANG HAHN: Imitations of Sicilian Folles of Constantine IV from Bilad al-Sham

NITZAN AMITAI-PREISS AND YOAV FARHI: A Small Assemblage of Lead Sealings, Weight and Coins from the Early Islamic Period

DAN BARAG: A Hoard of Amalricus I Deniers from the Vicinity of Bethlehem

Obituary: Dan P. Barag

Obituary: Hanan Eshel

Obituary: Silvia Mani Hurter

LIST OF ADDRESSES OF AUTHORS

ABBREVIATIONS
City Coins from Roman Palestine Made of Lead and Comparable Materials

YOAV FARHI

INTRODUCTION

LEAD, a cheap, soft metal, was used as currency from ancient times. In the sixth century BCE, Polycrates of Samos is said to have persuaded the Spartans to remove their troops from the island by paying them with gold-plated lead coins.¹ In the Hellenistic period lead currency became more popular (see below), although it was by no means an exception in monetary history.²

OVERVIEW

The main question regarding Hellenistic, Roman and later lead issues concerns their function in the economy. Below are the common explanations of these objects. Obviously, there was no single use for lead issues, and many examples of most of the functions are known:

1. Emergency coins struck in lead at the time of a shortage of copper or other precious metals³

¹ Herodotus III, 56.
³ Milne published clay tesserae from Palmyra, which are actual copies of bronze coins of Sidon. In his opinion, they may have been used as coins in trade when there was a shortage of bronze coins in circulation. If so, it seems that in case of a real shortage of bronze even clay was used as a substitute; See J. G. Milne: Local Currencies of East Syria under the Roman Empire, Ancient Egypt and the East (1934), pp. 24–25, nos. 1–4; J. G. Milne: Syriac Substitute-Currencies, Iraq 6 (1939), pp. 93–94, nos. 1–2. McDowell published clay objects that bear designs approximating Seleucid coin types; see R. H. McDowell: Stamped and Inscribed Objects from Seleucia on the Tigris, Ann Arbor, 1935, pp. 241–250. In his opinion they had a certain official character, possibly as admission tokens to public feasts or games (ibid., pp. 241–242). He rejects Milne’s opinion that the objects from Palmyra were used as coins on the grounds that “recourse to clay coinage must then have resulted from a prolonged shortage of stocks of the necessary metals — not from a temporary interruption of traffic” (ibid., pp. 242–243 n. 14). For additional clay tokens see: M. Lang and M. Crosby: The Athenian Agora: Results of Excavations Conducted by the American School of Classical Studies at Athens. Vol. X: Weights, Measures and Tokens. Princeton. 1964. Pp. 124–130. In my opinion, it is hard to believe that these clay pieces circulated as replacements for bronze coins. I would rather see them as tokens.
2. *Tesserae* (tokens) redeemable for goods or services
3. Test pieces or trial strikes for bronze or silver coin dies
4. Coin-like weights (?)
5. Legal currency, usually small change, supplementing bronze or in periods in which almost no bronzes were minted

**1. Emergency coins:** Excavations at Nisa, the early Parthian capital, have brought to light several lead coins, including four tetradrachms and three drachms with types of Alexander the Great (dated to the days of Seleucus I), as well as two tetradrachms with types of Antiochus III and a drachm of an early Parthian type. Because no traces of plating remained on the coins, Lorber and Houghton do not believe that these were lead cores for silver coins. In their opinion, the lead in these coins was used as a substitute for silver and probably reflects a shortage of silver for local minting. Another lead tetradrachm of Antiochus III was published by Houghton as a test piece, but Hoover suggested that it may have served as an emergency coin or token.

D. Barag and later O. D. Hoover, as well as other scholars, have shown clearly that lead coins that copied bronze prototypes were occasionally struck in the second and first centuries BCE by the Ptolemies, Seleucids, Hasmoneans,

---

5 Ibid.
11 For lead coins of Alexander Jannaeus, see Barag (n. 8 above), pp. 1–3; Y. Meshorer: *A Treasury of Jewish Coins from the Persian Period to Bar Kokhba*, Jerusalem and Nyack, NY, 2001, pp. 47–48, 211, Group M. Hendin published several new Jewish lead issues, only one of which is a copy of a known bronze coin type; see D. Hendin: Four New Jewish Lead Coins or Tokens, *INJ* 13 (1994–99), pp. 63–64, no. 1. This one seems to me to be a coin, whereas the others were probably used as tokens. Recently a
Nabataeans, and some cities, such as Ascalon (?) and Gaza. In addition, in the late Hellenistic period lead may have been used for copying silver coins.

Barag argues that the Hellenistic lead coins were emergency money. This is also Hoover’s opinion regarding the Ptolemaic lead coinage in Coele-Syria. As for the Nabataean lead issues, Hoover argues that they were probably used as some sort of token.

2. Lead tesserae (tokens) from the Greek and Roman periods are known from various cities and regions. This term is usually used for coin-shaped objects that were minted on one side only and/or bear types not known in contemporary coins. In addition, they tend to lack certain marks, such as a city legend or date. Thus, it seems unlikely that their original function was to circulate as coins. But, as Kovalenko notes, we cannot rule out the possibility that over time lead tesserae....
acquired monetary status and circulated as small change along with ordinary coins.²⁰

3. **Lead test pieces** are known from all over the ancient world,²¹ usually in one of three forms: (1) an impression of a single die on one side of a lead plate, which is larger than the usual coin flan and often square;²² (2) impressions of two reverse or obverse dies, one on each side, if both sides of a flan resembling a normal coin are impressed;²³ (3) two dies on a single flan resembling a normal coin except for its metal and size (it is much larger than the usual coin flan).²⁴ Determining whether something is a test piece or a coin is the most difficult in the last case.

4. **Coin-like weights(?):** Based on a coin-like lead object published by Hoover,²⁵ it is possible that lead weights, shaped like coins but much heavier, were used in the Seleucid period, perhaps in a Seleucid mint.²⁶

---

²⁰ Kovalenko (n. 19 above), p. 52. A thorough discussion of this subject is beyond the scope of this paper. For further information and bibliography, see M. K. Thornton: The Roman Lead Tesserae: Observations on Two Historical Problems, *Historia: Zeitschrift für Alte Geschichte* 29, no. 3 (1980), pp. 335–355, and the relevant references in the text above.

²¹ A nice example of a lead test piece or trial strike, probably from the late 5th-early 4th centuries BCE, is known from the Bardawil Reef (Egypt); see also Z. Ilan and A. Yosef: Ancient Settlements on the Bardawil Reef, *Qadmoniot* 38–39 (1977), pp. 78–79 (Hebrew). Comstock and Vermeule published a list titled “surviving lead trial pieces” that included seventeen known objects — sixteen lead and one bronze — dated to the Greek — and Roman periods (6th century BCE-3rd century CE); see M. Comstock and C. C. Vermeule: *Greek Coins, 1950–1963*, Boston, 1964, p. 75. In my opinion, since no pictures or full details of these objects were published, the identification of these items as test pieces or trial strikes should be treated with caution.


²³ See, for example, Houghton (n. 6 above), p. 2, no. 1; Hoover (n. 7 above), p. 154, no. 850; Hoover, Lead Test Pieces (n. 22 above), fig. 1.

²⁴ See, for example, Fischer-Bossert (n. 22 above), pl. 1:1.

²⁵ Hoover (n. 7 above), p. 155, no. 853; 2008b, p. 239, fig. 5

²⁶ In my opinion, the portrait might be of a Roman emperor (Hadrian?). If so, judging by
5. Legal currency: Lead coins from the Roman period are known as well but seem to be discussed less by scholars than the Hellenistic ones. Le Rider discussed thousands of small lead coins from Susa, struck by the kings of Characene in the mid-first century CE.\(^{27}\) Like the examples from the Hellenistic period, the lead issues from Susa copy bronze coins rather closely. Local lead currency from the Hellenistic and Roman periods is also known from other parts of the ancient world such as Spain, Italy and Central Asia.\(^{28}\)

Dattari, Milne, Geissen and Weiser, and Emmett have described local lead currency of Roman Egypt in the late second and third centuries CE.\(^{29}\) Unlike the Hellenistic examples above, these items were probably used as local tokens rather than emergency money.

Geissen and Weiser included in their catalogue one lead coin minted in the name of Antoninus Pius\(^{30}\) and four lead coins (all probably from the same dies)

---


28 For Late Hellenistic lead coins from Spain and central Italy, see C. Stannard: Numismatic Evidence for Relations between Spain and Central Italy at the Turn of the Second and First Centuries BC, *SNR* 84 (2005), pp. 47–79 (with further bibliography). It seems that lead issues were very common in Spain (where they are known as “Plomos Monetiformes”); see the bibliography at [http://data.numismatics.org/cgi-bin/libsearch?format=default&fld=any&kw=plomos&type=any&fld=any&kw=&ye arop=eq&year=&fld=any&kw=](http://data.numismatics.org/cgi-bin/libsearch?format=default&fld=any&kw=plomos&type=any&fld=any&kw=&ye arop=eq&year=&fld=any&kw=). For lead coins from Central Asia, see R. C. Senior: *Indo-Scythian Coins and History*, Lancaster, 2001, nos. 302, 308, 343, 367–372. I thank Mr. Senior for this reference.


30 Two similar coins are in the Kadman Numismatic Pavilion, Tel Aviv. These two coins (K-62638 [35.32 gr., 28–29 mm] and K-62639 [39.31 gr., 29–30 mm]) seem to be cast
minted under Claudius Gothicus. These lead issues, which are copies of known coins, were described by the authors as “imitations”.

Milne has also published examples of Roman lead coins found in Syria and Palestine, some of them copies of Roman denarii. According to Milne, some of these issues may have been used as coins, but the function of others is unknown. Based on a testimony of Cassius Dio regarding the debased currency that Caracalla furnished to the Romans — “The gold that he gave them was of course genuine, whereas the silver and the gold currency that he furnished to the Romans was debased; for he manufactured the one kind out of lead plated with silver and the other out of copper plated with gold” (Roman History, LXXVIII, 14, 4) — it is possible that the lead denarii published by Milne were originally silver plated, as the one supplied by Caracalla.

What seems to be a hitherto-unpublished Roman lead coin appeared recently in Gerhard Hirsch Nachfolger, Auction 248–249 (February 6, 2007), lot 1914 (no. 1 below). The diameter of the coin is 24 mm, the weight is unknown and the axis seems to be 12 (Fig. 1).

1. *Obv.*: Laureate bust of Hadrian to r., wearing paludamentum and cuirass; inscription obliterated

   *Rev.*: Fortuna(?) standing l., draped, holding patera(?) in r. and cornucopia in l.; in l. field [S] and in r. field C; inscription obliterated

This coin seems to be a lead copy of a known bronze coin; if so, it may have been minted in Rome itself, or it may be an ancient copy made in one of the provinces.
Roman Lead City Coins from Syria-Palaestina

The first Roman lead city coin from Syria-Palaestina to be published was a coin from Nysa-Scythopolis (no. 2) minted in the name of Caracalla and dated to 215–216 CE.

2. Pb; 16.48 gr.; 31–32 mm; axis: 12 (Fig. 2)
   Obv.: Laureate and draped bust of Caracalla to r.; from bottom l., [AVTO.KAI.-ANTÔNINOC]
   Rev.: In five lines within wreath, ΘΩC/NVCAΘ/CKVΘΟΠΙ/IEPACA/CV[LΩV]36

According to Barkay, this coin was minted with the same dies as a bronze coin of the city, known from a single specimen published by Spijkerman.37 She assumes this was a trial piece.

Recently, a Roman lead coin of Gaza, from the collection of the late Chaim Yashin, was published (no. 3).

3. Pb; 28.88 gr.; 27.5–28.5 mm; axis: 12 (Fig. 3)
   Obv.: Laureate bust of Antoninus Pius to r., wearing paludamentum and cuirass; from top r., ANTΩ…-C[BA]
   Rev.: Bust of Tyche r., draped, turreted and veiled; to r. ΓAZA and 4; to l. date: […]IC38

The coin, in the name of Antoninus Pius, is part of a well-known series of large bronze coins minted between 140/1 and 160/1 CE and having a portrait of Tyche on the reverse. The first letter of the date is not clear. The reverse of this coin is especially similar to the coins dated 215–217 (154/5–156/7 CE), but since this type of obverse die with the inscription CCBA is known only for year 217 (156/7 CE), perhaps the coin should be dated to that year.

Another hitherto-unpublished lead coin from the same series of large bronzes, minted in the name of Antoninus Pius, is in the Hebrew University collection (no. 4).

4. Pb; 29.92 gr.; 26–28mm; axis: 12 (Fig. 4)
   
   Obv.: Laureate bust of Antoninus Pius to r., wearing paludamentum and cuirass(?); from bottom l., KAI AΔΠΙΑΝ- ΑΝΤΟΝ[ΕΙΝΟ]
   
   Rev.: Bust of Tyche r., draped, turreted and veiled; to r. ΓΑΖΑ and ٥; to l. date: ΘÇ
   
   HU collection, no. 3710 (unpublished)

40

The coin is dated to the year 209 (148/9 CE). Several similar bronze coins with similar (but not identical) dies are known.

Both coins are part of the well-known series of Antoninus Pius’s large bronze coins depicting Tyche. This series was probably very prominent and well known in the Roman period (as it is in collections today). Perhaps that is why people in those days were willing to use these coins, along with the bronze issues.

---


40 I wish to thank Prof. D. Barag, the curator of the numismatic collection, for the permission to publish this coin.

41 See, for example, Rosenberger (n. 39 above), no. 72; Yashin (n. 38 above), p. 76, no. 348.
DISCUSSION

In addition to the five explanations presented above for lead issues, we should consider another explanation. This one is especially applicable to lead issues that directly copy known coins and are found only in small quantities, such as the provincial issues presented above.

In my opinion, some lead issues, such as the ones from Gaza and Nysa-Scythopolis, may have been produced by local mints for use as legal tender. The evidence that lead and bronze coins were minted in the same year and even with the same dies indicates that the reason for the lead minting was probably not a shortage of copper or bronze.

I would like to suggest that these coins were used as replacement issues in some cases when the mint failed to supply a fixed number of bronze coins from a certain quantity of metal and needed to fill the gap. In these cases the lead issues (probably not many), minted in the same denominations and weight as the bronze ones, were added to the bronze series and circulated in the local market just like the bronze coins.

This possibility is similar to explanation 1 (above), but since in these cases the reason for using lead was not a shortage of copper, but rather a wrong division of a given amount of metal into a certain number of specimens, it should be considered a different explanation.

The evidence that these lead coins did circulate and were not melted might indicate that, in some cases, less care was given to the metal from which the coins were made than to the denomination, which was determined by the type and diameter of the dies and not by the flan diameter and/or an individual weight. The denominations of city coins are hard to determine. As Kadman notes in his discussion of the city coins of Ptolemais: “The coins even of the same type and size differ widely in weight. The weight of the individual bronze coins was obviously not controlled. The minting authorities seem to have been satisfied to receive a fixed number of pieces from a certain quantity of metal.”

The above two specimens from Gaza and the one from Nysa-Scythopolis, as well as examples from other cities, are strong evidence, in my opinion, that at

---


43 In the course of this study, I came across other Roman provincial lead coins. Some are in public or private collections; others are mentioned in various publications (for example, Milne [Syriac Substitute-Currencies, n. 3 above, p. 97] mentions a leaden copy of a Tyrian bronze of Trebonianus Gallus, but does not provide a picture or other details about it). As these coins were either in a poor state of preservation or were published without sufficient detail, they are not included here.
least some lead coins were minted for circulation and not merely as trial strikes. The evidence of some Late Roman or Early Byzantine lead issues,44 as well as Early Islamic and even Mamluk lead coins,45 indicates that this monetary phenomenon continued in these periods as well.
