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## DENOMINATIONS AND WEIGHTS OF BRONZE COINS OF ANTIOCHUS IV OF SYRIA AND THEIR RELATION TO THE SILVER COINAGE

Eckart Schlösser

Denominations and standard weights of greek bronze coins in general as well as their relation to the corresponding silver coinage are still obscure. This holds also for Seleucid bronze coins. Newell<sup>1</sup> by-passed this difficulty by using the terms «octuple», «quadruple», «double», «unit», and «half» in his major publications on the Seleucid coinage. Bellinger<sup>2</sup> and Mørkholm<sup>3</sup> accepted these arbitrary but convenient terms.

<sup>1</sup> E. T. Newell: *The Coinage of Eastern Seleucid Mints* (1938); *The Coinage of Western Seleucid Mints* (1941); *The Seleucid Mint of Antioch* (1914).

<sup>2</sup> A. R. Bellinger: *The Bronze Standards of Antiochus III, Seleucus IV and Antiochus IV;* *Numismatic Review* 2, 5-6 (1944).

<sup>3</sup> O. Mørkholm: *The Monetary System in the Seleucid Empire after 187 B.C.,* *Nickle Conf.,* Calgary (1981).

The former tried to establish a denomination-weight relation, but was not successful. This evasion is rather surprising, as there is a series of bronze coins of Antiochus IV from the mint of Seleucia ad Tigrim (Fig. 1) which carry marks of value:



Fig. 1

- Av. Head of Antiochus to r., rad., marks l.  $\frac{A}{X}$ ,  $\frac{B}{X}$  or  $\frac{\Delta}{X}$   
 Rv. Kybele turreted, seated l. on throne, holding Nike and scepter, at feet bird (heron)  
 Ref. BMC (Seleucid Kings) No. 23ff.

Leake<sup>4</sup> apparently was the first to suspect that the monograms  $\frac{B}{X}$  and  $\frac{\Delta}{X}$  on the obverse were nothing else but marks of value, indicating 2 and 4 chalkoi. Imhoof-Blumer<sup>5</sup> published further coins of this type and shared Leake's view. During the excavations at Seleucia ad Tigrim a comparatively large number of these coins was found. According to this site evidence<sup>6</sup>, most of the value-marked bronze coins of Antiochus IV must be attributed to the metropolis of Babylonia.

These coins themselves disclose the hitherto poorly understood denomination-weight relation. For this purpose coin weights were compiled from catalogues of major public collections - BMC (Seleucid Kings), Paris (Bibliothèque Nationale), Glasgow (Hunterian Coll.), SNG Cambridge (Fitzwilliam Mus.), SNG Copenhagen - and other sources<sup>7</sup>. Besides, a small denomination without a mark of value was included, as it obviously forms part of the series. It is primarily known from the Seleucia excavations and seems to correspond to a hemichalkus.

The average weights of the coins (Tab. 1) seem to reflect those of tetradrachms, didrachms, drachms and hemidrachms of attic standard, a relation which was already noticed by Imhoof-Blumer<sup>5</sup>. In the second period of his reign from 173/2-169/8 B.C.

Tab. 1 Denominations and weights of bronze coins with marks of value of Antiochus IV from the mint of Seleucia ad Tigrim

Denomination	coins n	standard <sup>a</sup>	weight in g	
			effective	linear regression
			$\bar{x}$	
Tetrachalkon (TC)	7	16.80	16.91 (100.7)	16.65 (99.1)
Dichalkon (DC)	17	8.40	7.78 (92.6)	8.37 (99.6)
Chalkus (C)	27	4.20	4.02 (95.7)	4.23 (100.7)
Hemichalkus (HC)	25	2.10	2.17 (103.3)	2.16 (102.9)

() = % of postulated weight

<sup>a</sup> Based on a tetradrachm of 16.80 g

<sup>4</sup> W.M. Leake: Numismata Hellenica (1854), 27.

<sup>5</sup> F. Imhoof-Blumer: ZfN 3 (1876), 347-348.

<sup>6</sup> R.H. McDowell: Coins from Seleucia on the Tigris (1935), 20.

<sup>7</sup> Coins of the Seleucid Empire from the Collection of Arthur Houghton, ANS ACNAC 4 (1983); McDowell (above n. 6); author's collection.

Antiochus IV reduced the weight of the tetradrachms from 17.00 to 16.80 g<sup>8</sup>. Contrary to coins from Antioch on the Orontes or other mints, those of Seleucia ad Tigrim do not carry the epithets ΕΠΙΦΑΝΗΣ or ΕΠΙΦΑΝΗΣ/ΝΙΚΗΦΟΡΟΣ on the reverse, which would allow their safe attribution to one of the three periods in the reign of Antiochus IV<sup>9</sup>. The coinage of the first period from 175–173/2 B.C. appears to be relatively small in volume, while that of the other two periods is rather prolific. Thus, the bronze coins of Seleucia with marks of value on the obverse were most likely issued either in the second or the third period, presumably on occasion of the expedition to the East in 165 B.C. Based on this assumption, the weights of these bronze coins should be related to a tetradrachm of 16.80 g. By doing so, a close relation becomes obvious (Tab. 1). This relation was strengthened by the results of a linear regression analysis (Fig. 2, Tab. 1). Thus, there is the following denomination-weight relation of bronze coins of Antiochus IV to the silver coinage:

Tetradrachm	16.80 g	Tetrachalkon
Didrachm	8.40 g	Dichalkon
Drachm	4.20 g	Chalkus
Hemidrachm	2.10 g	Hemichalkus

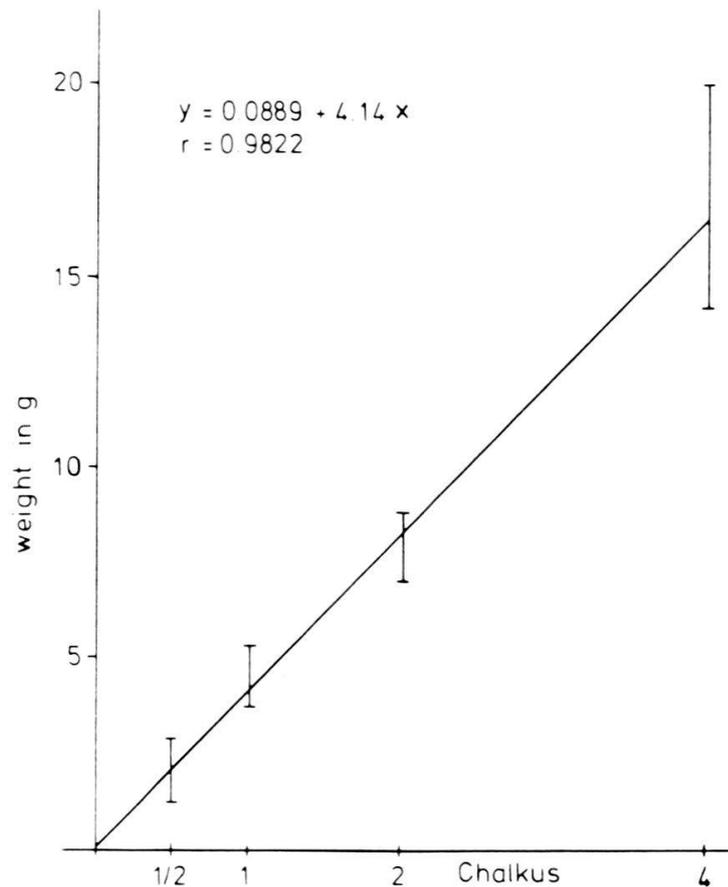


Fig. 2

<sup>8</sup> E. Schlösser: Das Gewicht der Tetradrachmen des Antiochos IV von Syrien, SM 34 (1984), 29–33; according to a recent, not yet published investigation covering the entire seleucid period (B.C. 312–83), the weight of the reduced tetradrachms of Antiochus IV is 16.80 rather than 16.70 g.

<sup>9</sup> O. Mørholm: Studies in the Coinage of Antiochus IV of Syria, Hist. Filos. Medd. Dan. Vid. Selsk 40 (1963), 1–75.

Following the equivalence of 1 drachm = 6 obols and 1 obol = 8 chalkoi, the weight ratio of silver to bronze coins would be 1 : 48.

Is this relation valid for entire Seleucid empire or is it just a whimsy of the mint officials from Seleucia ad Tigrim? To answer this question, municipal bronze coins (Fig. 3) issued by the Seleucid capital Antiochia in the third period of Antiochus IV from 169/8-164 B.C. were compared with those presumably issued in the same period at Seleucia:



Fig. 3

- Av. Head of Antiochus IV to r.  
 Rv. Zeus standing facing, head l., holding wreath  
 Ref. BMC (Seleucid Kings) No. 61 ff.

The weights compiled from catalogues of major public collections and other sources<sup>7</sup> yielded mean values (Tab. 2) for the dichalkon and the chalkus, which correspond almost exactly to those of the didrachm and the drachm. This proves, that the demonstrated denomination-weight relationship of bronze coins and their relation to the silver coinage of attic standard is valid for the whole of the Seleucid empire. Right now, this has been shown for Antiochus IV only. Whether this relation is applicable for all Seleucid kings remains to be established.

Tab. 2. Denominations and weights of municipal bronze coins from Antiochia of the III. period of Antiochus IV from 169/8-164 B.C.

Denomination	coins n	standard	weight in g
			effective $\bar{x}$
DC	33	8.40	8.34 (99.3)
C	19	4.20	3.93 (93.6)

() = % of postulated weight