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## Mamluk Egyptian Copper Coinage Before 759/1357-1358: A Preliminary Inquiry

### I

Paul Balog's *The Coinage of the Mamluk Sultans of Egypt and Syria* was published in 1964.<sup>1</sup> Contrary to a frequently-encountered belief among Mamlukists, the study of Mamluk money did not end with its appearance. While the *CMSES* (as it will henceforth be referred to) has proved a solid foundation for the subsequent study of Mamluk numismatics and monetary history, it did not solve every problem nor answer every question. There are still several outstanding gaps in our knowledge of Mamluk money. This article sketches out the parameters of one such gap: developments in the copper coinage minted in Cairo for the first century of Mamluk rule.

In the year 759/1357-58, apparently at the instigation of the Amir Sarghitmish, the Mamluk Sultan al-Nāṣir Ḥasan issued new copper coins (often referred to as *al-fulūs al-judud* in the sources) of different appearance and minted to a heavier, fixed weight—the *mithqāl* standard—than those that had circulated previously.<sup>2</sup> Coins similar to these were minted during the remaining decades of the eighth/fourteenth century, and apparently were struck in such quantities that they circulated well into the next.<sup>3</sup> But what was going on before these developments? What is the state of our knowledge about Mamluk *fulūs* before the “new ones?” The obvious starting point in the search for answers is the *CMSES*, where we read:

The weight-unit of the copper coinage since the beginning of the Bahri rule until 759 H, during the second reign of al-Nāṣir Ḥasan, was the *dirhem*. At this time the *mithqāl* was officially proclaimed as the unit of weight. Whereas before 759 H. the copper could pass

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<sup>1</sup>New York, 1964.

<sup>2</sup>The coin type is *CMSES* type 369.

<sup>3</sup>See Warren C. Schultz, “Mahmūd ibn ‘Alī and the ‘New Fulūs’: Late Fourteenth Century Egyptian Fulūs Reconsidered,” *American Journal of Numismatics*, 2nd ser., 10 (1998): 127-48.



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by tale [i.e., by count], even though for modest transactions only, after that time it had to be weighed for any business deal.<sup>4</sup>

In light of the research presented below, several modifications must be made to Balog's assessment. First of all, the situation is quite different depending on whether one is discussing *fulūs* struck in Cairo or in the major Syrian mint cities of Damascus, Ḥamāh, Aleppo and Tripoli.<sup>5</sup> For reasons explored in the next section, this discussion will be limited to those coins struck in Cairo. Secondly, the numismatic record for Cairene *fulūs* itself is scanty to say the least, and fraught with problems. Thirdly, the surviving literary records reveal a more complex situation for the period "since the beginning of Baḥri rule." And finally, the question why the Mamluk Sultanate would have specified a weight standard for low value copper coinage must be asked.

## II

It is useful to preface this discussion with some comments about copper coinages in the medieval Islamic world. Unlike gold and silver coins of a high alloy, copper (and other base metal) coinages have a low intrinsic value, reflecting the lower worth of copper vis-à-vis the precious metals. Copper coins are thus usually described as a fiduciary money, with a higher percentage of their circulating (extrinsic) value determined by factors other than their metallic content. The only ways in which an issuing authority could maintain this higher extrinsic value would be by limiting the number of copper coins it issued and by accepting them in turn as payment for taxes and other transactions.<sup>6</sup> Failure to do so could result in the coins plummeting in value to a floor provided only by the market value of the metal itself.

<sup>4</sup>*CMSES*, 49. Balog based his analysis here on the compilation of textual citations found in William Popper's *Egypt and Syria under the Circassian Sultans, Systematic Notes to Ibn Taghribirdī's Chronicles of Egypt*, University of California Publications in Semitic Philology, vol. 16 (Berkeley, 1957).

<sup>5</sup>The occasional Mamluk mints of al-Lādhiqīyah, Malatya, and al-Marqab seem to have minted only silver. Copper coins were not struck in Alexandria until 770/1368-69, and thus fall outside of the time period of this study. Aḥmad ibn 'Alī al-Maqrīzī, *Ighāthat al-Ummah bi-Kashf al-Ghummah*, ed. Muḥammad Muṣṭafá Ziyādah and Jamāl al-Dīn Shayyāl (Cairo, 1940), 69.

<sup>6</sup>See Carlo Cipolla, "The Big Problem of the Petty Coins," in *Money, Prices, and Civilization in the Mediterranean World, Fifth to Seventeenth Centuries* (Princeton, 1956), 27-37. Cipolla discusses coins of extremely low silver content in this article, but his analysis holds true for copper-only coins as well. It is worth repeating that despite what is frequently asserted, it is highly unlikely that any pre-modern state could guarantee or enforce exchange rates after a coin entered circulation.



Copper coins are also said to have fulfilled a different role in the marketplace than their precious metal counterparts. Copper coins are often dismissed as merely local coins, good for petty purchases only, and not given the status of legal currency. The reality is more complex, both for questions of legal standing and circulation. For the former, while it is true that gold and silver coins are discussed more frequently than copper coins in the works of major Muslim jurists,<sup>7</sup> by the Mamluk period it is clear that the role and status of copper coins was of concern to religious scholars.<sup>8</sup> This is a topic that needs further attention.

In terms of circulation, it must be acknowledged that both textual and archeological evidence suggest that Mamluk copper coins could circulate far from the city of their origin. *Fulūs* from Cairo, for example, circulated as far afield as Jerusalem and its environs,<sup>9</sup> and possibly in Quṣayr on the Red Sea as well.<sup>10</sup> Nevertheless, it is probably safe to assume that the norm was for these coins to circulate close to their mint of origin. That said, there are immediate differences between the copper issues of Cairo and the Syrian mints for the first century of Mamluk rule. The copper issues of the Syrian mint cities (Damascus, Ḥamāh, Aleppo, Tripoli) are far better known than those from Cairo. Many more Syrian types and actual specimens are known to us, although few studies of these coins have been published.<sup>11</sup> These Syrian *fulūs* vary tremendously in their appearance,

<sup>7</sup>See Robert Brunschvig, "Conceptions monétaires chez les juristes musulmans (VIIIe-XIIIe siècles)," *Arabica* 14 (1967): 113-43; and A. L. Udovitch, *Partnership and Profit in Medieval Islam* (Princeton, 1970).

<sup>8</sup>As is well known, al-Maqrīzī's screeds against copper coinage pepper his *Ighāthah* and *Shudhūr al-Nuqūd fī Dhikr al-Nuqūd*. Al-Suyūfī also discusses copper coinage in a *fatwā*, "Qaṭ' al-Mujādalah 'inda Taghyīr al-Mu'āmalah," cited by Christopher Toll, "Minting Technique according to Arabic Literary Sources," *Oriental Suecana* 19-20 (1970-71): 125-37. An as yet unexploited resource are the Mamluk-era *fiqh* manuals. Rafaat El Nabarawy has drawn attention to one such manuscript, Ibn Hayyim's "Nuzhat al-Nufūs fī Bayān Ḥukm al-Ta'āmul bi-al-Fulūs" preserved in the Dār al-Kutub al-Miṣrīyah MS 1073 *fiqh shāfi'ī*. See his "Maskūkāt al-Mamālīk al-Jirākisah fī Miṣr," Ph.D. diss., University of Cairo, 1981, p. *yā'*.

<sup>9</sup>Ibn Hayyim, "Nuzhat al-Nufūs," mentioned Cairene coppers circulating in Jerusalem (cited by El Nabarawy, "Maskūkāt al-Mamālīk," p. *yā'*). This observation is also supported by many small hoards of copper coins preserved at the Israel Antiquities Authority, wherein Cairene coppers are found mixed with *fulūs* from the Syrian mints. The author gratefully acknowledges the permission of Ruth Peled and the assistance of D. T. Ariel in examining these coins. While it is true that archeological finds alone do not prove zones of circulation, in this case the correlation of both literary and archeological evidence supports the assertion that Cairene coppers did indeed circulate in Jerusalem.

<sup>10</sup>This is clear from the archeological excavations done at the site, which revealed copper coins from Cairo and other Mamluk cities. Permission to examine the coins found at Quṣayr and preserved at the Oriental Institute of the University of Chicago was granted by Donald Whitcomb.

<sup>11</sup>The important study by Lutz Ilisch, "The emission of copper coins in 8<sup>th</sup> century H. Mamluk



and make frequent use of heraldic-type designs and decorations. The situation is made more complex by the fact that many coppers of clear Syrian provenance lack a mint name. They also exhibit extreme metrological variance from type to type and across mint. The issues of each of these Syrian mints is deserving of their own study. For these reasons, I will limit my discussion to Cairene *fulūs* only.

Finally, as was the case for gold and silver, there were no functioning mines for copper in the Mamluk domains.<sup>12</sup> Metal for minting *fulūs* had to come from either existing stocks of copper (in the form of older coins or in other goods such as plate, etc.) or was purchased from external sources.

### III

The numismatic and the literary records are clear that the Ayyubid rulers of Egypt minted copper coins.<sup>13</sup> The Mamluks thus inherited a monetary market place in which coins of gold, silver, and copper circulated. Unfortunately, while copper coins are mentioned in the sources with some frequency, actual copper coins from the first century of Mamluk rule are rather rare. There are only 16 types that have thus far been linked to Cairo by the *CMSES* and subsequent scholarship. These types, along with two other possible Cairene types, are listed in Figure 1. Obviously, there are significant gaps in this record. Coins have been definitively linked to only four sultans out of a possible 21 rulers from Shajar al-Durr to the second reign of al-Nāṣir Ḥasan.<sup>14</sup> Clearly there is much numismatic spade work to be done. Three problems seem especially important to me as illustrative of the difficulties faced in studying the copper coinage of this period.

The first concerns the *fulūs* of al-Zāhir Baybars.<sup>15</sup> The only mint name found on his surviving coins thus far is Damascus. Most of his copper coins are without

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Syria," delivered at the Balog Memorial Symposium in 1988, is unpublished.

<sup>12</sup> Āfiyah, Muḥammad Sāmiḥ, *Ta'dīn fī Miṣr Qadīman wa-Ḥadīthan* (Cairo:,1985), vol. 1, *Al-Ta'dīn al-Qadīm fī Miṣr*, 215. Cf. Adel Allouche, *Mamluk Economics* (Salt Lake City, 1994), 18.

<sup>13</sup> After several centuries in which copper coins were apparently not minted in Egypt, the Ayyubid al-Mālik al-Kāmil (615-35/1218-38) ordered the striking of *fulūs*. For a discussion of this event, see Hassanein Rabie, *The Financial System of Egypt, AH 564-741/1169-1341* (London, 1972), 182-83; the story of the woman and the water seller is surely apocryphal. This episode is also discussed by Claude Cahen, "Monetary Circulation in Egypt at the time of the Crusades and the Reform of al-Kāmil," in *The Islamic Middle East, 700-1900*, ed. A. L. Udovitch (Princeton, 1982), 315-33.

<sup>14</sup> This ignores the Syrian-based "revolts" and claims of Sinjār and Sunqur. For the Syrian *fulūs* struck by Sunqur, see Balog, "Un fals d'al-Kāmil Shams al-Dīn Sunqur, sultan mamelouk rebelle de Damas," *Revue numismatique*, ser. 6, vol. 15 (1973): 177-79.

<sup>15</sup> See *CMSES* types 94-103.



mint name. For good reason, many of these mint-less coins have been linked to other Syrian cities, notably Ḥamāh.<sup>16</sup> However, it is of course possible that some of the coin-types lacking a mint name were struck in Cairo. That this is so is one probable repercussion of the fact that mint-less coins of Baybars were found in the digs at Fustāṭ.<sup>17</sup>

A second problem lies in the copper coins of al-Nāṣir Muḥammad.<sup>18</sup> The entire coinage of this sultan awaits an in-depth analysis. His *fulūs*, in particular, are little understood. Many are mint-less and most types lack dates. The few that have dates are from his third reign only. More seem to be from Syria than Cairo. When faced with the difficulties of sorting and attributing this coinage, Balog placed it all in his discussion of al-Nāṣir Muḥammad's third reign (709-41/1309-40) for "practical purposes."<sup>19</sup> A perusal of this section of the *CMSES*, however, reveals that some of the copper coins attributed to al-Nāṣir Muḥammad by Balog bear only the regnal title *al-Malik al-Nāṣir* or even just *al-Nāṣir*. Note that it is possible that coins featuring only the regnal title *al-Nāṣir* and without personal name could also be al-Nāṣir Ḥasan, or for that matter any of the other Mamluk sultans who adopted this sobriquet. Balog argued against this, stating that the copper coins of al-Nāṣir Ḥasan have a "different style of design" than those of al-Nāṣir Muḥammad.<sup>20</sup> He was doubtless referring to the "new *fulūs*" minted in 759 and after; these coins are clearly different from what is known to have preceded them, and are immediately recognizable. However, it must be emphasized that these "different" coins appeared only in 759, towards the end of the second of two reigns of al-Nāṣir Ḥasan (748-52/1347-51 and 755-62/1354-61). The question remains: did al-Nāṣir Ḥasan order the minting of copper coins in the years before 759? As of yet, no coins of Cairo for Ḥasan before 759 have been found, possibly because no one has been looking for them. It is possible that some of them are mixed in with the issues of al-Nāṣir Muḥammad. The lucky appearance of an overstrike or odd die link would be most helpful in this matter.

Furthermore, many of these coins are thus far only known in a few specimens. I have been able to locate and study only four examples of Quṭuz's type #26, for

<sup>16</sup>Lorenz Korn, *Sylloge Numorum Arabicorum Tübingen: Ḥamāh IV c Bilād aš-Šām III* (Berlin, 1998), 26.

<sup>17</sup>I have examined six of these Fustāṭ coins of Baybars. They are preserved in the Oriental Institute of the University of Chicago. My thanks to Raymond Tindel for his assistance in viewing these coins.

<sup>18</sup>*CMSES* types 214-65, pp. 147-63. An initial attempt at making sense of this complex copper series is Nuha N. N. Khoury's "The Copper Coinage of al-Nasir Muhammad b. Qala'un," unpublished paper, 1986 American Numismatic Society Summer Graduate Seminar.

<sup>19</sup>*CMSES*, 125.

<sup>20</sup>*Ibid.*, 163.



example, and only six of Qalāwūn's type #140. The exceptions to this issue of scarcity are the later types of al-Nāṣir Muḥammad and al-Ṣāliḥ Ismā'īl. Thanks to two hoards, both published by Balog, several hundred of these coins are known and available for study.<sup>21</sup> Nevertheless, given the paucity of surviving specimens, the publication of more specimens of already known rare types would not be mere duplication but significant contributions to our knowledge, making possible more comprehensive studies of the *fulūs* of the first Mamluk century.

#### IV

In contrast to the scanty numismatic record, the Mamluk literary sources contain many remarks about the Cairene *fulūs* in the first decades of Mamluk rule. Copper coins are mentioned in various contexts, ranging from lists of prices to exchange rates to the description of innovations in the way in which *fulūs* were valued. The earliest mention of this last sort of comment refers to events of the year 695/1295-96, during the reign of the sultan Kitbughā.<sup>22</sup> It is found in al-Maqrīzī's *Ighāthah*, and is worth quoting in its entirety.

When al-'Ādil Kitbughā became sultan, . . . the injustices of the vizir Fakhr al-Dīn 'Umar ibn 'Abd al-'Azīz al-Khalīlī became more frequent, and the members of the sultan's entourage and his mamluks oppressed the population. Because all were greedy in [accumulating] wealth and receiving bribes and protection money, new *fulūs* were minted. These were *so light* that people avoided them. Hence it was proclaimed in 695/1295-96 that *they would be valued by weight and that one fals would be the weight of one dirham* [of minted copper]. Then it was announced that the exchange rate of one *raṭl* of *fulūs* would be two [silver] *dirhams*. *This was*

<sup>21</sup>Balog, "Trésor de monnaies en cuivre Mamelouks Bahrides," *Annali d'Instituto Italiano di Numismatica* 23-24 (1976-77): 199-215; idem, "Three Hoards of Mamluk Coins," *American Numismatic Society Museum Notes* 16 (1970): 173-78. The "Annali" hoard of 668 pieces is particularly important. These coins are recognizable by their "chocolate-brown" patina. The bulk of this hoard remained in Balog's personal collection. This important collection is now preserved at the Israel Museum, where I was able to weigh these coins, many of them for the first time. I would like to thank Yaakov Meshorer and Haim Gitler for their assistance in studying the Balog collection.

<sup>22</sup>A supposed development in Mamluk *fulūs* said to have occurred in 650/1252-53 did not in fact occur. It is the result of an editing error in the text of al-Maqrīzī's *Ighāthah*, 70. The actual events described in that passage took place "after 750" and not "after 650" as the editors put it. See W. Schultz, "Mamluk Money from Baybars to Barquq," Ph.D. diss., University of Chicago, 1995, 190-92.



*the first time in Egypt that [the value of] the fulūs was determined by weight and not by tale.*<sup>23</sup> (emphasis added)

Several items in this passage require further comment. There are two “firsts” mentioned in this passage, one explicitly and the other implicitly. The “explicit” first is al-Maqrīzī’s last sentence; that this event marked the first time that the value of Egyptian copper coins was determined by their weight and not count. This is problematic, in light of evidence discussed below. The “implicit” first in the passage is al-Maqrīzī’s assertion that the weight of a single copper coin was set at one *dirham*.<sup>24</sup> This is the earliest known (to us) citation that pegs Mamluk *fulūs* to a specific weight standard. If true, it places the establishment of a weight standard for the copper coins not at the beginning of the Bahri period, but more than four decades into the sultanate. More importantly, if true, it inserts a new factor in the determination of value of these coins.

Prior to this development, if the weight of earlier copper coins did not matter, then the sole determinant of value was quantity. The more coins one possessed, the more money one had in one’s possession. This is the normal situation expected when dealing with a fiduciary coinage of low intrinsic worth. Of course the value of the coins could be lowered by a number of factors, chief among them the failure of the mint to limit the numbers minted, but it would not make a difference if some coins were heavier than others.<sup>25</sup> If this were the case in Egypt prior to 695, however, why then would the people reject “lightweight” copper coins as asserted in the above passage? How could a coin be described as lightweight if no weight standard had been specified?

The answers to these questions lie in an analysis of al-Maqrīzī’s assertion that the year 695/1295-96 marked the first time the value of copper coins was determined by weight. Specifically, we must explore the math behind the exchange rates

<sup>23</sup>Allouche, *Mamluk Economics*, 71. The original Arabic is found in the *Ighāthah*, 70, but see also 37-38. Al-Maqrīzī gave no source for his account of this event, which took place well before his birth. It is probable that the ultimate source for this account was a now-lost section of the history of al-Yūsufī. This is warranted by the observation that a similar account (lacking a few details) is also found in Badr al-Dīn Maḥmūd ibn Aḥmad al-‘Aynī, *Iqd al-Jumān fī Tārīkh Ahl al-Zamān*, ed. Muḥammad Muḥammad Amīn (Cairo, 1987-91), 3:303. The dependence of both al-Maqrīzī and al-‘Aynī on al-Yūsufī has been established by Donald P. Little, “The Recovery of a Lost Source for Bāḥrī Mamlūk History: al-Yūsufī’s *Nuzhat al-Nāzir fī Šīrat al-Malik al-Nāšir*,” *Journal of the American Oriental Society* 94 (1974): 42-54.

<sup>24</sup>Note that the term “*dirham*” is both the generic name for a silver coin, a unit of account used in valuation, and a weight unit of approximately three grams. In this case it is clearly used to signify a weight unit. See George C. Miles, “Dirham,” in *The Encyclopaedia of Islam*, 2nd ed., 2:319-20.

<sup>25</sup>Therefore I must disagree with Rabie, who posits the existence of “lightweight” copper coins in the early Bahri period (*Financial System*, 188).



along with a closer examination of other contemporary textual sources. Al-Maqrīzī wrote that the exchange rate of these new copper coins was set at one *raṭl* of *fulūs* equal to two silver *dirham* coins. In Egypt at that time, a *raṭl* was a unit of weight equivalent to 144 *dirham* weight units. If the exchange rate cited above is correct, the math is quite simple. With their weight fixed at one *dirham*, 144 of the new copper coins of 695 would weigh a *raṭl*, and collectively be worth two silver *dirhams*. Thus 72 of these *fulūs* would equal one silver coin.<sup>26</sup> If the new *fulūs* were prepared with care and indeed weighed a *dirham*, the holder of the coppers desiring to use them in a commercial transaction could either count out the coins or weigh them to reach the desired amount, for the resulting sums would be equivalent. Thus a customer could count out 18 *fulūs* to purchase an item priced at a quarter-*dirham*, but then for an item priced at four silver *dirhams*, he could weigh out four *raṭls* of *fulūs* rather than count out 288 separate coins. But other than the ease with which such interchangeability must have aided transactions, what else could have been behind the establishment of a weight standard for low value copper coins?

The establishment of a weight standard may also be explained as an attempt to minimize the harm that was evidently being done to those using *fulūs* by the way in which copper coins had previously been valued in the marketplace. This explanation is based on the fact that al-Maqrīzī was wrong in his assertion that 695 was the first time Mamluk copper had passed by weight (the explicit first mentioned above). Other Mamluk sources mention two instances in the two years preceding 695 where the copper:silver exchange rate specified the total weight of copper coins required to buy a silver coin but not their number. According to al-Suyūfī (like al-Maqrīzī a ninth/fifteenth century source), in 693/1293-94 it took one *ūqīyah* of copper coins to equal one-quarter of a silver *dirham*.<sup>27</sup> At twelve *ūqīyahs* to the *raṭl*, this would result in an exchange of one *raṭl* of copper coins worth three silver *dirhams*. Al-Suyūfī then mentioned that the rate subsequently fell to one *raṭl* of copper equal to two silver coins, a rate corroborated for 694/1294-95 by al-Maqrīzī in his *Sulūk*, (and also cited as the rate reaffirmed in 695).<sup>28</sup> In

<sup>26</sup>This exchange rate represents a devaluation of the copper:silver ratio found much earlier in the seventh/thirteenth century. In 622/1225 it took 48 *fulūs* to buy one good silver coin, and 16 to purchase one low silver coin. The exchange rates quoted in most discussions of al-Kāmil's reforms of that year usually fail to differentiate between the types of silver coins available in the market. See Aḥmad ibn 'Abd al-Wahhāb al-Nuwayrī, *Nihāyat al-Arab fī Funūn al-Adab* (Cairo, 1964- ), 29:131, n. 2, but note that the editors mistakenly identify a *dirham wariq* as a high silver content coin.

<sup>27</sup>Jalāl al-Dīn al-Suyūfī, *Husn al-Muḥādarah fī Akhbār Miṣr wa-al-Qāhirah* (Cairo, 1904), 2:177. See also Popper, *Egypt and Syria*, 67.

<sup>28</sup>Al-Suyūfī, *Husn*, 2:177; al-Maqrīzī, *Kitāb al-Sulūk li-Ma'rifat Duwal al-Mulūk*, ed. Muḥammad



neither of these years is the number of copper coins necessary to reach the required weight specified. Thus we are left to conclude that prior to 695 no weight standard had yet been fixed for the copper coins. What was important was the total weight of copper coins required to exchange for a silver *dirham*, not their number. In effect, copper coins had become little copper ingots, valued at or slightly above their copper content. In such a context, a heavier coin would be worth more than a lighter one.

The events leading up to 695 reveal a fundamental tension that apparently existed up to the last decade of the seventh/thirteenth century. This tension resulted in different rules in effect for transactions involving copper coins depending on whether the transaction was small or large. Simply stated, it meant that those who held lighter-weight coins would always face the potential of loss in value when they tried to use those *fulūs* in large scale transactions. If, for example, a baker sold loaves of bread for a single *fals* or two per loaf, it is likely that he accepted these coins by tale. Yet if he had to pay for his silver *dirhams'* worth of wheat using several *raṭls* of these same coins (as was evidently the case in 693-94), he would need more of the light-weight coins to make the desired exchange weight. It is no wonder that before 695 the Cairenes are said to have refused to use the lighter-weight coins said to have been issued by Kitbughā's minions. Since the exchange rate for larger transactions was already two *raṭls* of copper coins per silver *dirham*, it would have required more of the newer coins to reach that weight.

Once the weight of individual copper coins was standardized, however, the number of copper coins necessary to total a *raṭl* would remain relatively constant. If the individual *fals* weighed a *dirham*, then it should always take 144 of these *fulūs* to reach a *raṭl*. Of course the value of that *raṭl* of *fulūs* vis-à-vis silver *dirhams* could change in response to any number of market factors, but by minting copper coins to a specified weight standard, the nameless officials responsible were in effect attempting to guarantee the extrinsic value of coined copper. Given these circumstances, a weight standard for the *fulūs* can be seen for what it was, an attempt to ensure that the same petty coins could be used in confidence both by tale and by weight.

I have discussed this account in some detail because it sets the parameters of all subsequent *fals* crises of the remainder of the period under consideration here. In every example, the *fulūs* are said to circulate at an established rate of exchange until the presence of lighter coins (either officially minted or perhaps counterfeits) forces a drop in the copper:silver exchange rate, which in turn causes upheaval in the marketplaces of Cairo. This brings about the minting of new full-weight coins which circulate at the old exchange rate. The old *fulūs* are usually said to have decreased in value, taking many more of them to equal a silver *dirham* than



before. This basic cycle of events is mentioned at least four more times in the Mamluk sources for the period up to 759.

The first such occurs in 705/1305-6, during the second reign of al-Nāṣir Muḥammad.<sup>29</sup> The next crisis of *fulūs* falls in the years 720-21/1320-22, during the third reign of al-Nāṣir Muḥammad. This episode is noteworthy because some of the new full-weight coins issued in response to the turmoil are said to have included a "heraldic napkin" (*buqjah*) in their design as a way to differentiate them from the preceding coins.<sup>30</sup> This account is closely followed by the events of 724/1323-24.<sup>31</sup> The final example occurs in 745/1344-45, during the reign of al-Šāliḥ Ismā'īl.<sup>32</sup> While the odd detail may vary between these accounts, the basic pattern is very familiar.<sup>33</sup>

It remains to be seen if the numismatic evidence corroborates the above analysis. Here the scantiness of this evidence proves an obstacle. There are no known Egyptian *fulūs* from the reign of Kitbughā, for example, and there are very few known from the sultans before him, so we are unable to mesh the account of 695 with precise numismatic data. Yet the surviving coins are not entirely mute concerning the possible establishment of a *dirham*-weight *fals* in or around 695. There do exist five measurable samples of coins that fall on either side of that date. These samples allow us to ascertain if a weight standard was ever established for *fulūs* during the first century of Mamluk rule.

Muṣṭafá Ziyādah and Sa'īd 'Abd al-Fattāḥ 'Āshūr (Cairo, 1934-73), 1:810.

<sup>29</sup>Al-Maqrīzī, *Sulūk*, 2:17. See also al-'Aynī, *Iqd*, 4:410, where there is no mention of the minting of new coins, and K. V. Zetterstéen, *Beiträge zur Geschichte der Mamlukensultane in den Jahren 690-741 Higra, nach arabischen Handschriften* (Leiden, 1919), 132, for an even briefer account. Al-Maqrīzī's passage reads "in that year economic transactions in Cairo ceased due to the increase of the number of *fulūs* as well as [an increase] in the lightweight *fulūs*. . . . New *fulūs* were ordered struck and the lightweight *fulūs* were exchanged at the rate of two and one half [silver *dirhams*] per *raṭl*, and business resumed."

<sup>30</sup>Al-Maqrīzī, *Sulūk*, 2:205-6; cf. Rabie, *Financial System*, 195-96. J. W. Allan has argued that this rhomboid is but a frame for the words it surrounds and not necessarily a heraldic device. See his "Mamluk Sultan Heraldry and the Numismatic Evidence: A Reinterpretation," *Journal of the Royal Asiatic Society* (1970): 99-112, especially 100.

<sup>31</sup>Al-Maqrīzī, *Sulūk*, 2:253, idem, *Al-Mawā'iz wa-al-I'tibār bi-Dhikr al-Khiṭaṭ wa-al-Āthār* (Bulaq, 1270/1853-54), 2:148-49; Abū al-Maḥāsīn Yūsuf Ibn Taghrībirdī, *Al-Nujūm al-Zāhirah fī Mulūk Miṣr wa-al-Qāhirah* (Cairo, 1942), 9:77; al-Suyūfī, *Ḥusn*, 2:180. There is no evidence to support the weight standard of a "dirham and one-eighth" cited by the editors of the *Sulūk*, and repeated in the text notes of the *Nujūm*.

<sup>32</sup>Al-Maqrīzī, *Sulūk*, 2:669.

<sup>33</sup>All except the last are discussed in Rabie, *Financial System*, 195-97.



The sole anterior sample is that of the Ayyubid Cairene *fulūs* of al-Kāmil Muḥammad and al-Šāliḥ Ayyūb.<sup>34</sup> While they were minted several decades before Kitbughā's reign, they do provide a baseline against which the early Mamluk *fulūs* may be compared. The weights of 85 of these coins are plotted in a frequency table (Fig. 2).<sup>35</sup> The wide range of coin weights—from less than 1.40 to more than 4.90 grams—and utter lack of a pronounced peak in any weight interval are strong visual proof that these Ayyubid coppers were not struck to a weight standard. It is safe to conclude, therefore, that if a weight standard for copper coins is subsequently encountered, it is of Mamluk origin.

The remaining four coin samples date from after the reign of Kitbughā. Three are dated to the third reign of al-Nāṣir Muḥammad, and the fourth to the reign of al-Šāliḥ Ismā'īl. Figure 3 tabulates the earliest sample from the third reign of al-Nāṣir Muḥammad, struck during the years 710-12/1310-13. The sample consists of twelve coins dated 710, and fourteen additional coins which, while undated, can be assigned to this period on stylistic grounds.<sup>36</sup> While this period does not match up with any of the crises noted above, these coins represent the closest available chronological set of data to the events of 695, and therefore should be examined. The weights of these 26 coins are plotted on Figure 3. The sample is admittedly quite small, but the peak interval (2.80-2.89 grams) is noteworthy. It falls close to the value of approximately 3.00 grams which is the weight usually associated with the *dirham*-weight unit in the Mamluk era.<sup>37</sup> Nine of the 26 coins fall in that range. While it would be unwise to build an argument on such a tiny sample, this graph—with its pronounced peak and tight cluster of 25 of the 26 coins—suggests at the very minimum that more attention was being paid to the weight of the *fulūs*.

The next set of coins can be clearly linked to the events of 720-21 mentioned above. This is evident from the *buqjah* which is quite prominent in the coin design. A small sample of 15 of these coins is tabulated in Figure 4. The shape of the graph is similar to Figure 3, albeit shifted slightly to the left on the horizontal

<sup>34</sup>While the Egyptian coppers of al-Kāmil Muḥammad are mint-less, they are attributed to Cairo by archeological evidence. See Michael Bates, "The Function of Fatimid and Ayyubid Glass Weights," *Journal of the Economic and Social History of the Orient* 24 (1981): 65, n. 8.

<sup>35</sup>A frequency table plots the number of coins on one axis against weight units on the other axis, and is a useful tool for illustrating metrological aspects of a coinage sample. The author would like to thank the many curators and private collectors who graciously made the collections in their care available for this metrological analysis.

<sup>36</sup>The coins in question are *CMSES* types 231-2. For a discussion of the style of these coins, see Khoury, "The Copper Coinage of al-Nasir Muhammad ibn Qala'un," 14-15.

<sup>37</sup>For the range of values for such units as the *dirham* and *mithqāl*, see my forthcoming "Mamluk Metrology and the Numismatic Evidence."



axis. The sample is too small to safely confirm or deny the existence of a weight standard, yet it does establish a base set of data to which future specimens may be added in the hope of eventually corroborating the literary accounts of this coinage. Still, if a *dirham* weight standard of approximately 3.00 grams was in place, the peak interval (2.50-2.59 grams) raises the possibility that this sample itself contains examples of the light-weight counterfeit coins mentioned by al-Maqrīzī in his accounts of the *buqjah* coinage.

The third and final batch of al-Nāṣir Muḥammad's coins studied contains 299 specimens of an epigraphic design.<sup>38</sup> These coins are undated, but can be placed with confidence in the last decade of his rule. Several factors support this attribution, the most important being the extremely close resemblance of these coins to the dated issues of Damascus from 735-41/1334-40.<sup>39</sup> (This is, incidentally, one of the few instances in which there appears to have been coordination in the minting of *fulūs* between Cairo and one of the Syrian mints. The significance of this awaits further study.) While this sample of coins does not chronologically match any of the incidents mentioned above, its size makes it a valuable source of metrological information. The weights of these coins are plotted in Figure 5. This frequency table has the prototypical bell-shaped curve that is expected when charting a coinage prepared to a fixed weight standard. The coins are tightly clustered around the peak interval of 2.90-2.99 grams. The average weight of the sample is 2.98 grams. Given the *dirham*-weight unit of about 3.00 grams for the Mamluk period, this data does indeed support the conclusion that by the fourth decade of the eighth/fourteenth century, Egyptian copper coins were being struck to the *dirham*-weight standard.

This standard was evidently continued into at least the reign of al-Ṣāliḥ Ismā'īl (743-46/1342-45). A sample of 188 coins dated 745-46 and bearing the name of this sultan is plotted in Figure 6.<sup>40</sup> With these dates, these coins are strongly linked to the episode of *fulūs* crisis in 745 discussed by al-Maqrīzī. While the curve is not the perfect bell-shape seen in Figure 5, it is a tightly packed histogram, suggesting close attention was paid to coin weight. The most interesting feature of the table is clearly the large number of coins that fall in the intervals 3.00 to 3.09 and 3.10 to 3.19 grams. This would suggest either that the coins were struck to a

<sup>38</sup>These coins are *CMSES* types 220-1. A total of 275 of these coins came from the hoard published by Balog as "Tresor de Monnais en cuivre Mamlouks Bahrides" (see note 21). Balog provided less than 20 weights in this article. Balog identified 263 coins as type 220-1. The additional 12 are the result of my attribution.

<sup>39</sup>The Damascene coins are *CMSES* types 222-226. For this and other stylistic reasons, Khoury also attributes these Cairene coppers to the latter years of his reign. (Khoury, "The Copper Coinage of al-Nasir Muhammad ibn Qala'un," 17-18.

<sup>40</sup>These coins are *CMSES* types 285-6.



standard slightly higher than the *dirham*-weight unit, or that the *dirham*-weight unit was slightly heavier than previously assumed, but final word on this should be postponed until more specimens of these types are known and weighed.

## V

Lastly, in light of this discussion of the literary and numismatic evidence, what conclusions can be drawn for the first century of Mamluk Egyptian *fulūs*? First, given the uneven quality of the numismatic evidence, any conclusions must be painted in the broadest possible strokes. A corollary of this is that the literary and numismatic evidence simply do not correlate closely. Coins discussed by the chronicles in certain years are often rare or even unknown, and those coins that do survive in large numbers are often not mentioned by the surviving literary sources at all. Thankfully, the possibilities for meshing chronicle and coin improve after this first century of Mamluk rule.

Secondly, we must back away from Balog's assertion that the *dirham*-weight standard was in place for the copper coins from the beginning of the Bahri period. The first mention of such a standard does not appear until 695, and the available numismatic evidence does not begin to support such an assertion until the third reign of al-Nāṣir Muḥammad. Figure 2 is proof that the Ayyubids did not utilize a standard weight *fals*. For the next eight decades we simply do not have enough coins to work with. It is only with Figure 5, plotting coins attributed to the late 730s, that we have a statistically viable sample indicating a weight standard was in use, and that that weight standard is close to the 3.00 gram range usually associated with the *dirham*-weight.

Thirdly, what was gained by the institution of a weight standard for the *fulūs*? Seen in the light of how copper coins circulated and were exchanged, the establishment of such a standard is best viewed as an attempt to insure that *fulūs* could be used for both small-scale and larger transactions; that those who took them by tale could also use them by weight. The fact that the 759 reform featuring *mithqāl*-weight coppers was maintained for more than three decades—the situation did not disintegrate until the 790s—further indicates that fixing the weights of Egyptian copper coins was an effective measure.

And finally, there is still work to be done in Mamluk numismatics and monetary history.



The following types have been identified. "Epigraphic" means that the most noteworthy feature of coins is their legend. They lack a clearly identifying symbol or design. Unless specifically mentioned otherwise, references are to Balog's *CMSES*.

Name:	Date:	Comments:
<i>Quṭuz</i> Type #26	658	epigraphic
<i>Qalāwūn</i> #140	678	epigraphic
#140A	ND	epigraphic (Balog 1970)
#140B	ND	epigraphic ( <i>Annali</i> 23)
<i>al-Nāṣir Muḥammad</i> #232	710	each side features a central circle, in which is found "Muḥammad" on one side, and "Qalāwūn" on the other.
#242	720	<i>buqjah</i> -type, c.f. #244, Damascus mint
#243	721	<i>buqjah</i> -type
#219B	ND	epigraphic ( <i>Annali</i> 23)
#220	ND	epigraphic, similar legends found on #222-226, all Damascus, dated 736-41.
#220A	ND	epigraphic ( <i>Annali</i> 23) variant of 220
#220B	ND	epigraphic ( <i>Annali</i> 23) variant of 220
#221	ND	epigraphic
#221A	(7)39	epigraphic ( <i>Annali</i> 23)
#231	ND	one side features a central circle in which is found "Muḥammad." The other side is epigraphic.
<i>al-Ṣāliḥ Ismā'īl</i> #285	745	legends enclosed in cross shaped cartouche on one side, in a linear square standing on edge, with arabesque knot in each corner, on the other
#286	746	as above
#290	DM	<i>dirham</i> -type dies? Attribution to Cairo is uncertain.
<i>al-Ṣāliḥ Ṣāliḥ</i> # __	753(?)	tentative attribution of coin in the ANS collection

Figure 1. Mamluk Copper Coinage of Cairo, 650-759



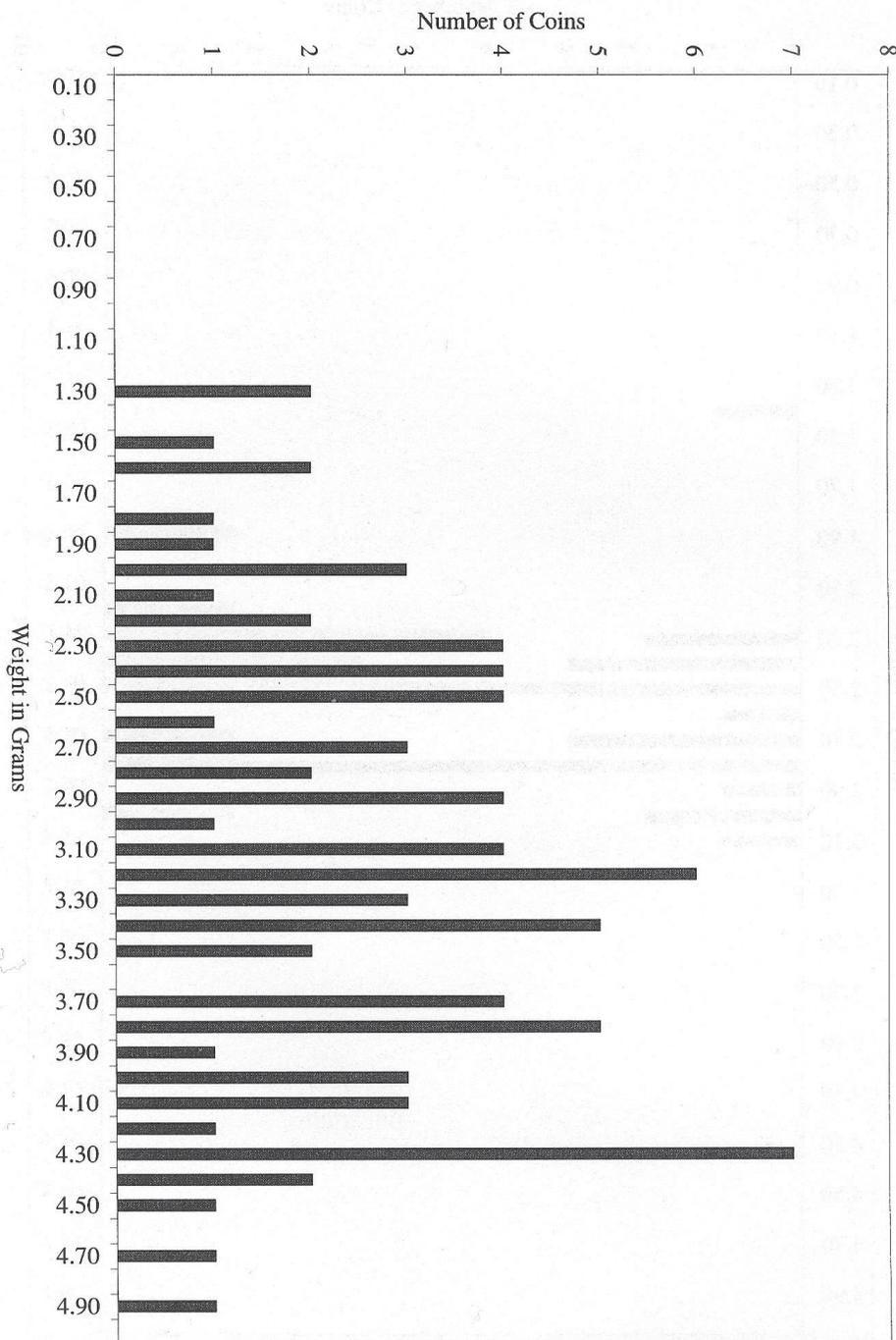


Figure 2. Avvubid *Fulūs* from Cairo (85 coins)



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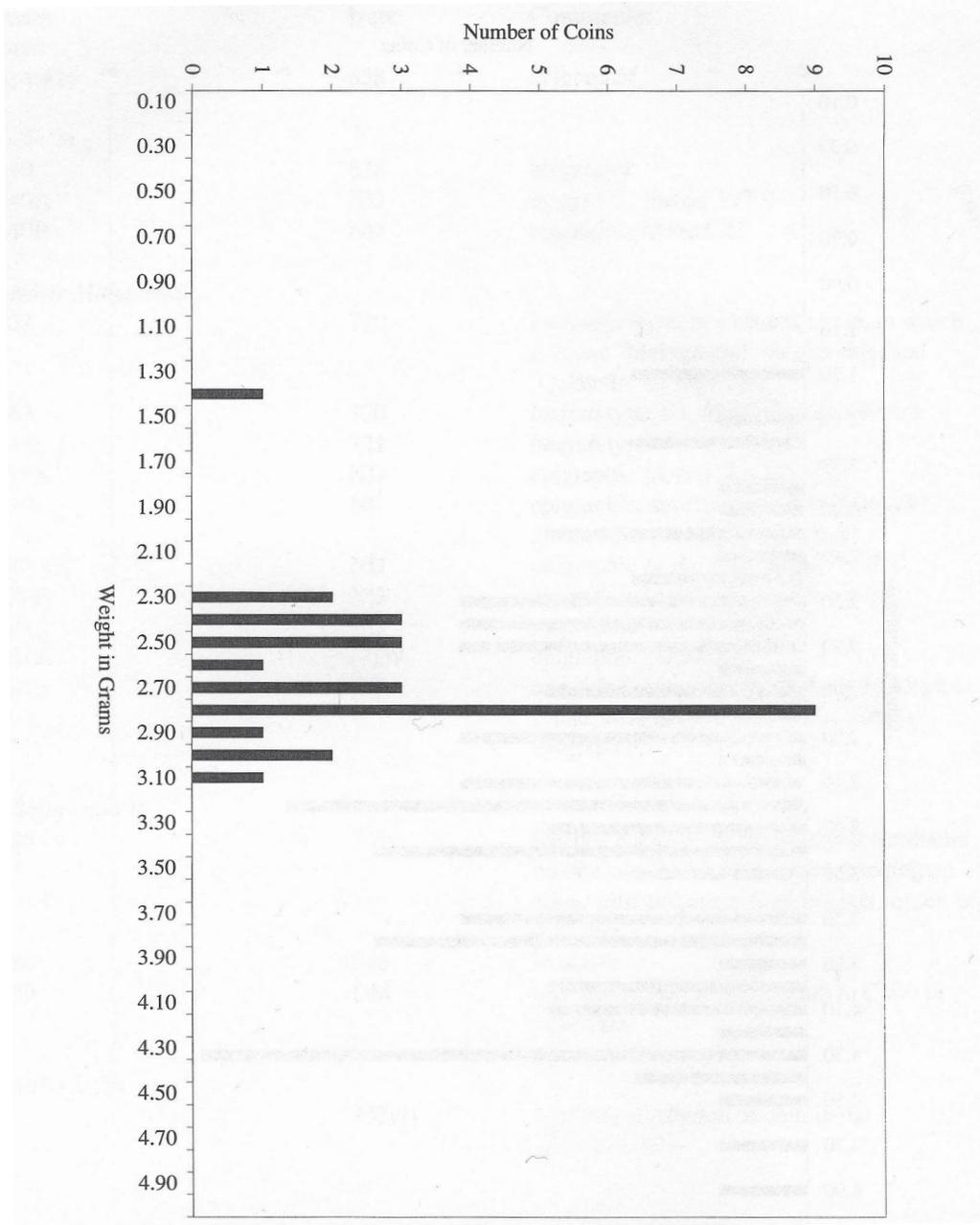


Figure 3. Cairo *Fulūs* of al-Nāṣir Muḥammad, *CMSES* type 231-2 (26 coins)



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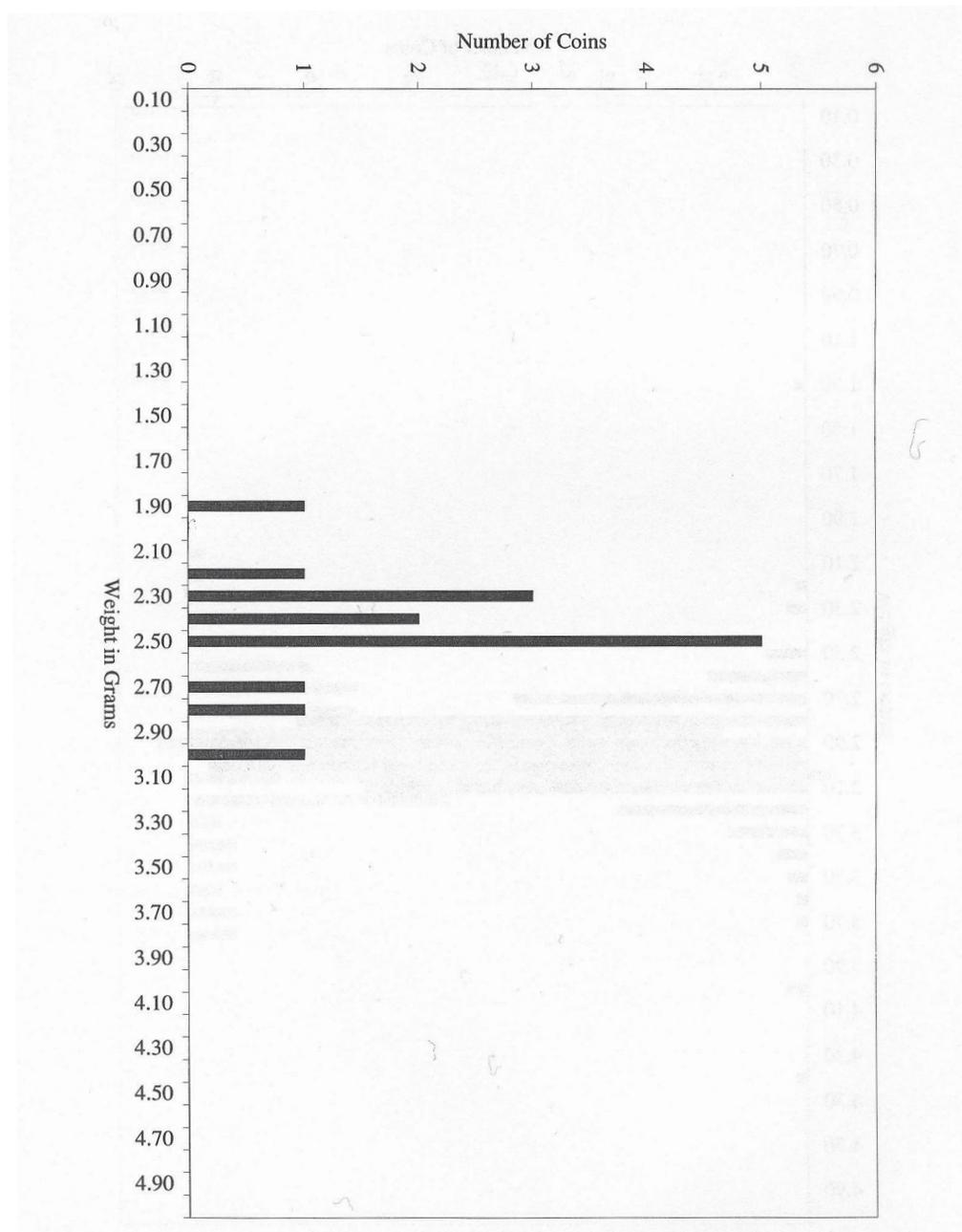


Figure 4. Cairo *Fulūs* of al-Nāṣir Muḥammad, *CMSES* type 242-3 (15 coins)



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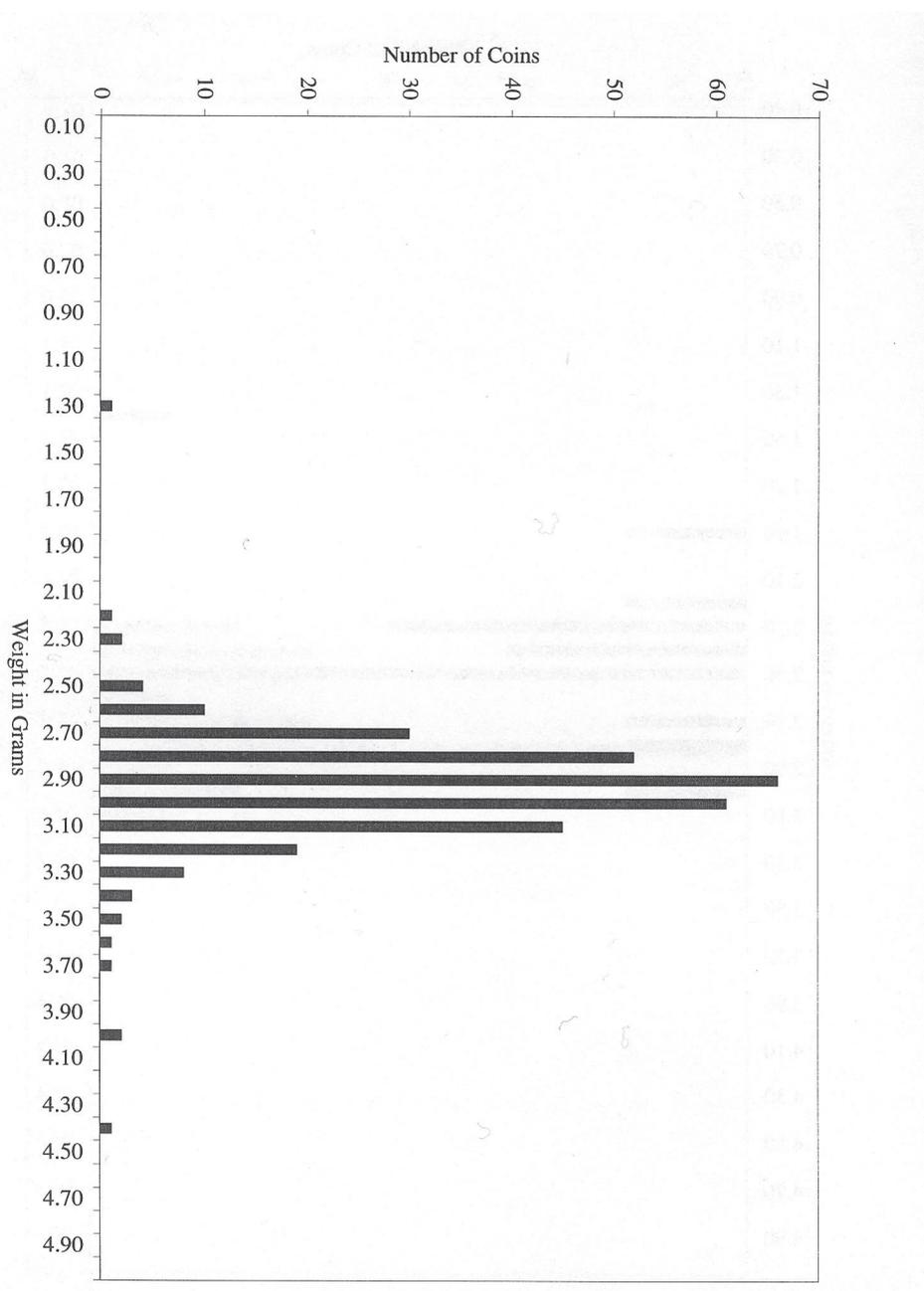


Figure 5. Cairo *Fulūs* of al-Nāṣir Muḥammad, *CMSES* type 220-1 (299 coins)



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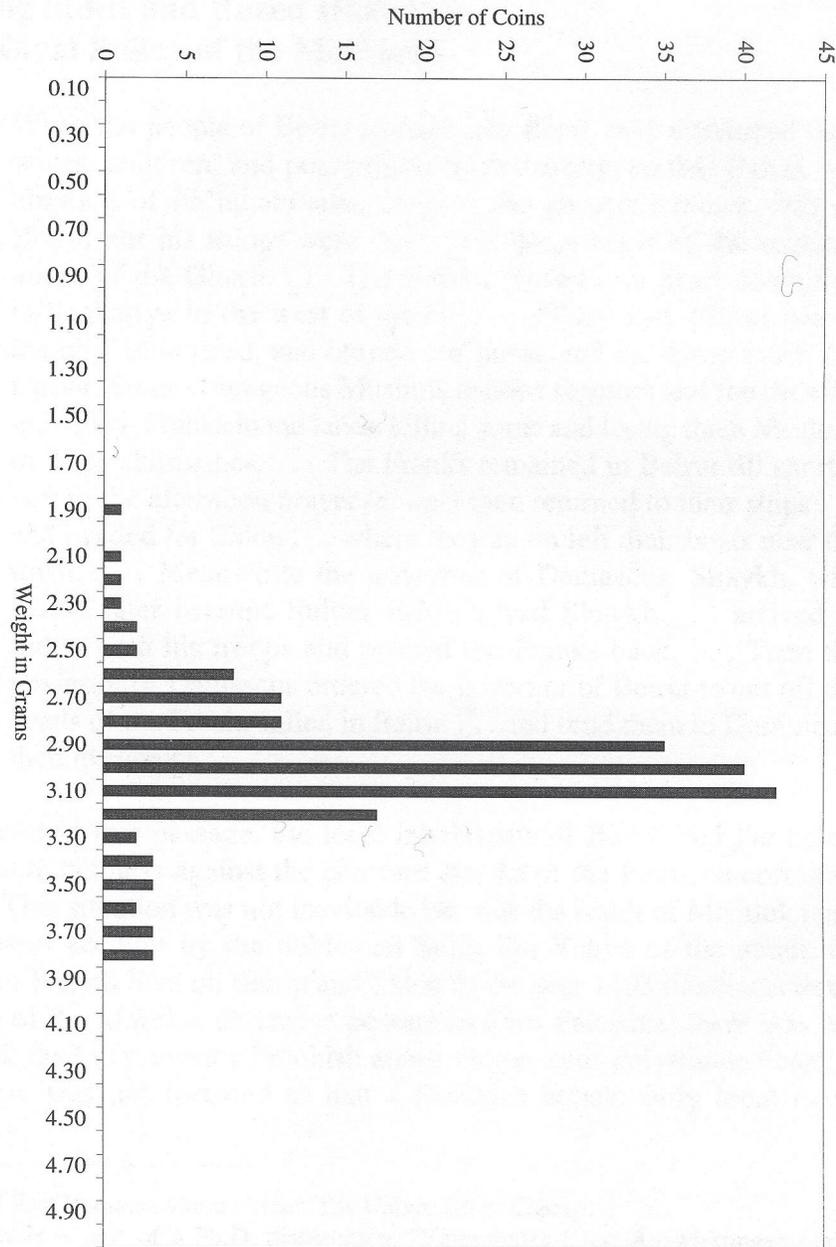


Figure 6. Cairo *Fulūs* of al-Ṣāliḥ Ismāʿīl, *CMSES* type 285-86 (188 coins)



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