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Mamluk Monetary History: A Review Essay

Surviving specimens of Islamic coinage were once treated merely as a small part of medieval economic or monetary history. Today they constitute an extremely important body of tangible, unintentional relics or traces, or source materials. Once these Islamic numismatic relics become heuristically re-monetized they acquire the status of key sources of information about the economic problems of Near Eastern society in the Middle Ages.¹

Mamluk money is important. Knowledge of what it was and awareness of how it circulated are crucial to the broader economic history of the sultanate, the medieval Mediterranean world, and the contemporary Indian Ocean basin. And as is well-known, the surviving Mamluk coins—the tangible remains of the Mamluk monetary system—are also important sources for other avenues of historical inquiry. These coins reveal information about epigraphy, heraldry, dynastic claims of legitimation, and political chronology, to list but a few.² These other uses of Mamluk coins are not addressed in this essay, however, as I concentrate on the field of monetary history proper: that is to say, the study of the surviving coins and other sources that reveal how money circulated and was valued in the Mamluk domains. This decision needs little defense, since interesting coin legends aside, the primary purposes of coins *qua* money are economic: as a store of value and as a medium of exchange. In what follows, I survey the state of the field of Mamluk monetary history, beginning with a discussion of the surviving numismatic evidence and the issues affecting its use, moving on to comments about the relevant literary and documentary sources concerning Mamluk money, and concluding with an overview of modern scholarship. Throughout the essay, I identify issues facing the field and suggest avenues of continuing inquiry.

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¹Andrew S. Ehrenkreutz, "Numismatics Re-Monetized," in *Michigan Oriental Studies in honor of George G. Cameron*, ed. Louis L. Orlin (Ann Arbor, 1976), 209.

²The latter has most recently been demonstrated by Stefan Heidemann in his *Das Aleppiner Kalifat (AD 1261): Vom Ende des Kalifates in Bagdad über zu den Restaurationen in Kairo* (Leiden, 1994).

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MAMLUK MONEY: THE NUMISMATIC EVIDENCE**MAMLUK COINS**

The most visible and important source for Mamluk monetary history is the coinage itself. Mamluk coins survive in the thousands. They span the entire 267 years of the regime. The vast majority of these coins were struck in one of six major mints.³ The Egyptian mint cities were Cairo and Alexandria. Mints in the Syrian provinces were located in Damascus, Hamah, Aleppo, and Tripoli. (A few coins survive from Malatyah and Ladhīqiyah, but these seem to have been occasional issues only.⁴) These Mamluk mints produced coins in gold, silver, and copper, although not every mint produced coins of each metal. Nor is a specimen necessarily known from each year for every mint. Yet as is developed below, the presence of gaps in current collections of Mamluk coins is seldom sufficient evidence upon which to base conclusions about the Mamluk monetary system.⁵ Nor should the presence or absence of coins of a particular metal be used to argue about the existence of "metallic standards" in Mamluk money. The Mamluk monetary system was trimetallic in the sense that coins of gold, silver and copper circulated together, but their values in relation to one another were interdependent and in frequent flux.⁶

Before embarking on a brief survey of this coinage, two issues must be mentioned. First, it should be noted that coins of foreign origin often circulated within Mamluk domains. Thus it is not uncommon to encounter in the archeological evidence or read in the written sources about Armenian silver trams (some with Mamluk overstrikes), gold and silver coins from the Italian city-states, or coins

³No Mamluk-era mint manual has been found. Our knowledge of Mamluk mint practices is therefore derived from the Ayyubid period. For a summary of what is known, see Helen W. Brown, "The Medieval Mint of Cairo: Some Aspects of Mint Organisation and Administration," in *Later Medieval Mints: Organization, Administration, and Technique*, ed. N.J. Mayhew and P. Spufford, B.A.R International Series 389 (1988), 30-39.

⁴These specimens are preserved in the collection of the Forschungstelle für islamische Numismatik, Tübingen. It is possible, of course, that other occasional mints will surface. For example, one specimen of a *dirham* minted in al-Marqab in the reign of al-Manṣūr Qalāwūn was recently discovered, and will be published soon by Elisabeth Puin. The phenomenon of coins minted by subject states yet bearing the names of Mamluk rulers is not addressed in this article. See M.R. Broome, "An Enigmatic 'Mamluk' Sequin," *Spink's Numismatic Circular* (July-August, 1979): 355.

⁵This is especially so since new coin types appear not infrequently. In a telephone conversation with Stephen Album, specialist in Islamic coins, in September 1997, for example, he revealed to me the existence of the first known Cairene *dirham* for the Sultan al-Ashraf Ṭūmānbāy (922/1516-17). The coin was found in a miscellaneous lot of 20-30 coins he had recently acquired, and is now in the Tübingen collection.

⁶In this approach to Mamluk money I follow the lead of Hennequin, as discussed below.

from the neighboring Muslim dynasties.⁷ The existence of such a wide variety of coins in circulation with Mamluk-produced coinage no doubt ensured that Mamluk-era money-changers (*ṣayrafī*, pl. *ṣayārīfah*) were kept busy determining the relative values of all these different coins.

The second issue is that of terminology. In the medieval Islamic world the basic vocabulary of money was remarkably similar from place to place and over the passage of time. While local usage of names for specific coins could vary tremendously, the following terms remained essentially constant: a gold coin was usually called a *dīnār* (pl. *danānīr*); a silver coin a *dirham* (pl. *darāhim*); and a base metal coin referred to as a *fals* (pl. *fulūs*). What must be stressed here, however, is that the many coins to which these terms were applied varied tremendously. The failure to address this fact has been the source of many modern misinterpretations of Islamic coinage.⁸ In the case of Mamluk coinage, *dīnār*, *dirham*, and *fals* are the usual terms encountered for gold, silver and copper coins, but there are significant differences of appearance, weight, and purity found among the coins bearing these labels. (The variations in purity are especially important. This is an area in which further research is always welcome.⁹) Adding to the possibility of confusion (for the modern observer at least) is the fact that other terms for these coins are frequently found in the sources. Thus *dirhams* were occasionally labeled *nuqrah* or *wariq*, terms whose meanings are not constant, and which have been the subject of modern disagreement.¹⁰ Furthermore, it is

⁷On the Armenian trams in Mamluk contexts, see Paul Bedoukian, "Some Armenian Coins Overstruck in Arabic," in *Armeniaca: Melanges d'Etudes Armeniennes* (Venice, 1969), 138-47. On the presence of Italian coins, see Jere Bacharach, "The Dinar Versus the Ducat," *International Journal of Middle East Studies* 4 (1973): 77-96; idem, "Foreign Coins, Forgers, and Forgeries in Fifteenth Century Egypt," in *Acte du 8^{eme} Congrès International de Numismatique* (Paris, 1976), 500-511.

⁸See Ehrenkretz's succinct discussion of this in his "Monetary Aspects of Medieval Near Eastern Economic History," in *Studies in the Economic History of the Middle East*, ed. M.A. Cook (London, 1970), 40-41. A similar caveat applies to metrology. Amounts such as the *mithqāl* and *dirham* [as weight unit] were not always and everywhere 4.25 and 2.97 grams as is often assumed.

⁹The following studies have provided a baseline for future research: Jere L. Bacharach and Adon A. Gordus, "Studies on the Fineness of Silver Coins," *Journal of the Economic and Social History of the Orient* 11 (1968): 298-317; Bacharach, "Monetary Movements in Medieval Egypt, 1171-1517," in *Precious Metals in the Later Medieval and Early Modern Worlds*, ed. J.F. Richards (Durham, NC, 1983), 159-81, esp. table 1.

¹⁰Compare the discussions of these terms in William Popper, *Egypt and Syria Under the Circassian Sultans 1382-1468 AD: Systematic Notes to Ibn Taghri Birdī's Chronicle of Egypt*, vol. 16 of The University of California Publications in Semitic Philology (1957), 41-79; Christopher Toll, "Minting Techniques According to Arabic Literary Sources," *Orientalia Suecana* 19-20 (1970-71): 125-39; and Andrew S. Ehrenkretz, "Extracts from the Technical Manual on the Ayyubid Mint in Cairo," *Bulletin of the School of Oriental and African Studies* 15 (1953): 423-47.

common to encounter the generic terms for gold (*dhahab*) and silver (*fiḍḍah*) in contexts where coined money is clearly meant. Finally, it was quite usual in the Mamluk era for coins to be referred to by an adjective based on the issuing ruler's *laqab*; thus a *dīnār* bearing the name of al-Ashraf Barsbāy (825-41/1422-37) was called an *Ashrafī*, to cite perhaps the best known example of this phenomenon. This practice has been adopted by modern numismatists, albeit with occasional imprecision.¹¹ Since gold and silver coins were seldom withdrawn from circulation in the Mamluk sultanate, it is not unusual to encounter mentions of several such *laqab*-labeled coins in the chronicles. This multiplicity of terms and the ambiguity they engender are two of the major difficulties encountered in the field of Mamluk monetary history.

Coins properly described as Mamluk were first struck in the reign of al-Zāhir Baybars (658-76/1260-77). Prior to his reign, the coinage minted in Egypt and Syria was essentially a continuation of Ayyubid monetary practice, with only the names on the coins changed.¹² Only the briefest overview of developments in Mamluk coinage is appropriate here. I will discuss first developments in Mamluk *dīnārs* and *dirhams*, and end with a discussion of the *fulūs*. The characteristics of Mamluk *dīnārs* suggest a threefold periodization. The first period, lasting from Baybars's reign through the second reign of al-Zāhir Barqūq (792-801/1390-99), is characterized by gold coins of high purity, but of such highly irregular weights that they clearly were weighed in any transaction.¹³ In the third period, stretching from the reign of Barsbay until the end of the sultanate, the *dīnārs* are remarkably consistent in terms of appearance, size and weight, as they all resemble the *Ashrafī dīnār* mentioned above. Their purity began to drop in the final decades, however. Between these two periods is one of transition, spanning the first three decades of the ninth/fifteenth century, during which several short-lived gold issues of varying size, design and weight were minted.¹⁴ These same parameters of periodization and appearance hold true when the silver coinage is examined.¹⁵

¹¹The *Ashrafī dīnār* established a design and size imitated by all subsequent Mamluk *dīnārs*. Thus it is common for numismatists to refer to these later coins as *Ashrafīs*, even though a *dīnār* of al-Zāhir Jaqmaq (842-957/1438-55), for example, is technically a *Zāhirī*, etc.

¹²For an introduction to Ayyubid coins, see Paul Balog, *The Coinage of the Ayyubids* (London, 1980).

¹³Warren C. Schultz, "Mamluk Money from Baybars to Barquq: A Study Based on the Literary and Numismatic Evidence," Ph.D. dissertation, The University of Chicago, 1995; see especially chapter 3, "The Precious Metals: Mamluk Gold and Silver Coinage."

¹⁴See Bacharach, "The Dinar vs. the Ducat."

¹⁵For an analysis of *dirhams* in the first period, see Schultz, "Mamluk Money," pp. 103-64; for periods two and three, see Bacharach, "Circassian Monetary Policy: Silver," *Numismatic Chronicle* 7th ser., 11 (1971): 267-81.

Mamluk *dirhams* from the third period are easily distinguishable from those of the first, and are also higher in silver content, at least initially. Both the gold and silver coins of the third period, however, await detailed metrological investigation, which is dependent on the weight and purity of more specimens being made available. Furthermore, these general observations about the precious metal coins hold true for both the Egyptian and Syrian mint issues.¹⁶

In the case of the copper coins, developments are not nearly as well known as with gold and silver, and much work remains to be done. Mamluk *fulūs* are generally assumed to have been of local currency only. That this is largely so is illustrated when the issues of respective mints are compared. Despite the existence of large gaps in the numismatic record, it is clear that the copper coins of Syria are quite different in appearance and method of issue than those of Egypt. Significant runs of copper are known for Cairo only for the last half of the eighth/ fourteenth century and for the reigns of al-Ashraf Qāyrbāy (872-901/1468-96) and al-Ashraf Qānsūh al-Ghawrī (906-22/1501-16). From Baybars up through the third reign of al-Nāṣir Muḥammad (709-41/1309-40), the surviving record is spotty, to say the least.¹⁷ In Alexandria, copper was apparently only struck in the last three decades of the eighth/fourteenth century.¹⁸ Thanks to the work of Lutz Ilisch, curator at the Forschungstelle für islamische Numismatik, Tübingen, the runs of the four major Syrian mints for much of the first 150 years of the sultanate have been established and clarified.¹⁹ Significant gaps exist, however, between the known issues of the

¹⁶Cf. Irwin, "The Supply of Money and the Direction of Trade in Thirteenth Century Syria," in *Coinage of the Latin East: The Fourth Oxford Symposium on Coinage and Monetary History*, ed. P.W. Edbury and D. M. Metcalf (Oxford, 1980), 73-104, who argues that through the Ayyubid period, Egypt and Syria constituted different money markets. During the Mamluk period, however, it is clear that gold and silver coins were minted and circulated in the same fashion. While periodic differences in value no doubt occurred, it is highly unlikely that widespread and purposeful arbitrage took place to take advantage of such fluctuations. It is safe to assume that the costs and risks of transporting precious metal would be greater than any profit made in arbitrage.

¹⁷There are many unanswered problems with these early Mamluk *fulūs*. For example, copper coins of Baybars are known, but most lack a mint name. On the basis of style, Lutz Ilisch has attributed most of these coins to Damascus, but the retrieval of some of these coins from the digs at al-Fuṣṭāṭ at least raises the possibility of Egyptian origin. There is a *fals* of Baybars of Fuṣṭāṭ provenance preserved in the Oriental Institute at the University of Chicago, accession number 25444.

¹⁸This assertion is supported not only by the numismatic evidence, but by the chronicles as well. For developments in fourteenth century Egyptian copper coinage, see Schultz, "Mahmud b. 'Ali and the 'New Fulus': Late Fourteenth Century Egyptian Copper Coinage Reconsidered," forthcoming in *The American Journal of Numismatics*.

¹⁹Unfortunately, his important article on the subject, "The emission system of copper coins in 8th century H. Mamluk Syria," delivered at the Balog memorial symposium, remains unpublished.

ninth/fifteenth century for those mints. The developments in Mamluk copper coinage for the ninth/fifteenth century have attracted significant attention from modern scholars.²⁰ The copper of this period is intimately linked with the money of account known as *dirham min al-fulūs* found with increasing frequency in the Mamluk chronicles. This term, the subject of much modern disagreement, is best understood as the amount of copper coins necessary to equal the value of a *dirham*'s worth of silver.²¹

BALOG'S *THE COINAGE OF THE MAMLUK SULTANS OF EGYPT AND SYRIA*

When compared to other fields of medieval Islamic numismatics, the coinage of the Mamluk sultans is well studied. At the center of this scholarship is Balog's corpus, *The Coinage of the Mamluk Sultans of Egypt and Syria* (henceforth *CMSES*).²² This work, the product of his many years of collection and research, identifies and orders over 900 types of Mamluk coins. (In numismatic terminology, "type" signifies a group of coins distinguished and united by their design.²³) The value and impact of this work cannot be overestimated. In it, Balog made a hitherto confused and often inaccessible body of information available to a wider audience. Since the *CMSES* has become the necessary starting point for research into Mamluk monetary history, it is worth discussing in detail.

In ordering the Mamluk coinage, Balog followed the approach that was the norm for most numismatic publications until relatively recently. He divided the coins first according to sultanic reign. Within each regnal period, the coins are then divided into three groups based on metallic content, and then further according to stylistic features. Thus coins featuring "heraldic" devices, for example, were grouped separately from those with designs that were purely epigraphic.²⁴ Only within these sub-groupings was a chronological ordering followed. The resulting

²⁰Bacharach, "Circassian Monetary Policy: Copper," *JESHO* 19 (1976): 32-47; and Shoshan, "From Silver to Copper: Monetary Change in Fifteenth Century Egypt," *Studia Islamica* 56 (1982): 97-116.

²¹Boaz Shoshan's assertion (in "From Silver to Copper," 113) that this term originally referred to a copper coin of "about 3 grams" is not supported by either the passage he cites from Popper's *Egypt and Syria*, 41, nor by the numismatic evidence.

²²Paul Balog, *The Coinage of the Mamluk Sultans of Egypt and Syria* (New York, 1964).

²³For an introduction to numismatic terminology and techniques, see Philip Grierson, *Numismatics* (London, 1975); John Casey, *Understanding Ancient Coins: An Introduction for Archaeologists and Historians* (London, 1986).

²⁴For contrasting answers to the question of whether the symbols found on Mamluk coins are heraldic, see J.W. Allan, "Mamluk Sultanic Heraldry and the Numismatic Evidence: A Reinterpretation," *Journal of the Royal Asiatic Society* (1970): 99-112; and Balog, "New Considerations on Mamluk Heraldry," *American Numismatic Society Museum Notes* 22 (1977): 183-212.

coin types were then provided a number. The *CMSES* listed 910 coin types, plus 24 additional types in the first supplement which are given letters and not numbers, and finally 11 more types in a second supplement, labeled SS.1-SS.11. Within this typology, Balog listed the specimens known to him for each type. This information was taken from his own and other private collections, public collections, and the catalogues of collections he did not have the opportunity to visit.

There are, however, two serious drawbacks to Balog's typology. First of all, this system leaves no room for the inevitable discovery of new coin types. Later scholars are thus forced to come up with labels such as 142A to describe a new coin that is similar to 142, yet not 143.²⁵ The lack of any oversight in assigning these hybrid numbers, combined with the often solitary nature of numismatic inquiry, frequently results in labels such as 142A being applied to different coins. In some cases, where coins of previously known design but unattested dates show up, the labels can become increasingly cumbersome and difficult to use.

Secondly, to borrow the words of Michael L. Bates, curator of Islamic Coins at the American Numismatic Society, this system is in fact "classification, not attribution. A scheme like this provides a pigeon-hole for every coin, but in no way does it represent the historical or geographical evolution of the coinage."²⁶ The historical and geographical evolution of the coinage is illustrated far better when coins are arranged in what is termed a mint series. In this attribution schema, the coins of all metals produced by one mint are laid out in chronological order. When coins are organized in such a manner, developments that are obscured by the jumble of types found in the *CMSES* are more easily seen. Trends such as debasement, stylistic diffusion, etc.—details that can help determine where undated coins fall in the chronology—become immediately more apparent. When combined with the mint series of preceding and following dynasties even longer term monetary trends may be observed. The value of the mint series format can be seen in the sylloges of Islamic coins published and in preparation by the Forschungstelle für islamische Numismatik in Tübingen.²⁷ A useful analogy is that of using libraries organized by either the Dewey Decimal or Library of Congress systems. If you know what you are looking for, you can eventually find what you want in the Dewey library, but browsing the shelves is easier in the LOC library and often leads to unexpected discoveries and links.

²⁵This is what Balog himself had to do in his "The Coinage of the Mamluk Sultans of Egypt and Syria, Additions and Corrections," *American Numismatic Society Museum Notes* 16 (1970): 113-72.

²⁶Bates was referring in this case to the British Museum catalogues of Arab-Byzantine and Arab-Sassanian coinages, but the observation is also valid for the *CMSES*. See Michael L. Bates, "The Earliest Arab Coinage of the Maghrib," a paper delivered at the 1993 MESA conference.

²⁷The series title is *Sylloge Numorum Arabicorum*. To date, volumes have appeared for Palestine (4a) and Eastern Khorasan (14b), with the volume for Hamah expected soon.

Thus a major desiderata for the field of Mamluk monetary history is the creation of a new organizing framework for the numismatic evidence. This system should be organized by mint series, and not be restricted to the coins found in only one collection. It should feature a numbering code that can easily incorporate new types and dates. This numbering system could, perhaps, be modeled on the format of a telephone number, where the different fields of numbers represent different discrete bits of information such as mint, date, sultan, etc. This new framework would be easily adaptable to electronic publication. As the technology for scanning images improves, it may soon be possible to produce an electronic corpus of Mamluk coins. Freed of the restrictions and cost of print, this corpus could be continually updated to reflect additional specimens and new discoveries.

FACTORS AFFECTING RESEARCH ON MAMLUK COINS

Suffice to say, the collection of Mamluk numismatic information did not end with the publication of *CMSES*. At the core of Balog's corpus was his personal collection.²⁸ This collection was stronger in Egyptian coins than those minted in Syria, reflecting Balog's long residence in Egypt. In the more than 30 years since the *CMSES* appeared, it has been added to and corrected by numerous studies.²⁹ Many of these "new" types are from the Syrian mints. There are now more than a thousand known types of Mamluk coins. Some are known only by one specimen, others survive by the hundreds. As a result, the basic parameters of the Mamluk monetary system are known. Yet there remain some important issues affecting the use of this numismatic material that must be raised. These include questions of coin survival and the many factors which affect the assembly and accessibility of coin collections.

An important batch of implications surrounds the issue of coin survival. So many factors affect survival that it is unwise to base elaborate economic arguments solely on the basis of a small number of coins surviving to the present.³⁰ The factors influencing the preservation of old coins include but are not limited to the number originally produced, the type of metal involved, competing demands for that metal, and pure luck. While Mamluk coins have survived in large numbers, the distribution of those coins across metal, mint of origin, and type is not equal. Mamluk copper coins, for example, survive in large numbers from some mints and years, but are rare or nonexistent from others. In terms of sheer numbers,

²⁸The bulk of Balog's personal collection of Mamluk coins is now preserved at the Israel Museum in Jerusalem.

²⁹Most notably by Balog himself in his "Additions and Corrections."

³⁰This has not stopped some scholars from making this mistake. See, for example, Rabie, *The Financial System of Egypt* (London, 1972), 192, where he argues for a "return to a gold standard" in 724 H. based upon one undated *dīnār*.

there may very well be more surviving Mamluk copper coins from the end of the eighth/fourteenth century than total specimens of Mamluk gold and silver coins known.³¹ Yet this does not necessarily mean that silver and gold coins were scarce in the Mamluk era. Such modern scarcity could be due to a number of reasons, chief among them that gold and silver coins are always subject to remelt into jewelry, plate, or even new coins. In addition, the location where coins were lost or stored can affect their survival. If lost in a wet environment, the coins might survive only in the form of a congealed lump, adhering to what remains of the container in which they were stored—if they survive at all. On the other hand, coins hoarded in a dry house wall may emerge in perfect condition after hundreds of years or more.

Of course, the mere fact that a coin has survived is of little use if it is not available for examination and study. Coin accessibility usually means that the coin is located in a collection, but not all coins find their way into museum or private holdings, nor are the latter always available for perusal. Moreover, to put it bluntly, the interest of the collector and that of the monetary historian are not always the same. This has major repercussions on the systematic study of coins. Such factors as the idiosyncratic tastes of the collector or curator, the vagaries of donations to public collections, the metal, beauty and uniqueness of the coin, cost or even space limitations have shaped collections, and thus impose limits on numismatic research. For example, the long-held collecting practices of acquiring one example of each coin type produced by a mint, individual or dynasty, as well as the tendency to collect only unique or rare specimens, often means that relatively few coins of any one type are preserved in any one collection. While such collections may provide a nice overview of the typology of numismatic issues, they do not accurately represent the ordinary coinage that was in use, nor do they preserve the large number of coins necessary for large-scale die studies or for statistical research into issues such as metrology and purity. Thus, as Cahen pointed out, a gap in a collection so structured “does not give us license to deduce systematic conclusions” about monetary developments.³²

Finally, the repercussions of modern treasure-trove laws affect the study of Mamluk coins today. Ancient coins are considered national treasures by most of the modern nations found in the lands of the Mamluk sultanate. Trade in such coins is regulated by a variety of antiquities legislation. The selling and exporting of such coins is usually illegal or at least severely restricted. The export of such

³¹See Bacharach, “The Ducat in Fourteenth Century Egypt,” *Res Orientales* 6 (1994): 99, where he estimates that hundreds of thousands of copper coins entered into circulation at the end of the eighth/fourteenth century.

³²Cl. Cahen, “Monetary Circulation in Egypt at the Time of the Crusades and the Reform of al-Kamil,” in *The Islamic Middle East, 700-1900*, ed. A.L. Udovitch (Princeton, 1981), 319-21.

coins may be considered smuggling, and subject to penalties. Nevertheless, a number of new coins show up in dealers' lists and auctions every year. Rightly or wrongly, laws are being broken. The situation is further complicated by the fact that some of these coins can be valuable, often fetching prices equivalent to tens, hundreds, and occasionally thousands of dollars. It is naïve to expect that such factors, often considered too sensitive or discomfoting to discuss, do not affect those interested in the serious study of these coins. They have a profound impact, for instance, on the study of hoards, those groups of coins deposited on purpose or by accident that the original owners never returned to retrieve.

Coin hoards are particularly valuable sources of monetary information. They are especially useful in determining what coins were circulating at a given time and place. Many hoards of Mamluk coins have been found, but few have been studied in depth. Part of this is due no doubt to the realities of the present-day coin market. Few Mamluk hoards have been found during official archeological digs, with the subsequent result that only rarely has a Mamluk-era hoard been studied *in situ*, with its integrity intact.³³ More hoards show up in the coin trade. Needless to say, the finders of such hoards are often conscious of the presumed illegality of their actions, and are silent about such issues as provenance, perhaps out of the dual desire to protect not only themselves but the area itself, in the hope of finding more coins nearby. As a result, it is rare to have more than a general sense of the location (e.g. upper Egypt, northern Syria) where the hoard was found. Similarly, as a hoard makes its way through the trade, it is always possible that it is subject to culling—the removal of the best specimens—which further compromises its integrity. When such a hoard is finally studied (if ever), it may still reveal a great deal of information, but not nearly as much as if it had been studied in its original state.

MAMLUK MONEY: THE LITERARY AND DOCUMENTARY EVIDENCE

MAMLUK-ERA LITERARY SOURCES

The major mint cities of the Mamluk sultanate were centers of learning as well as international marketplaces. As a result, the Mamluk regime is well recorded in many contemporary chronicles, biographical compilations, and other texts. The resulting wealth of literary source material—much of it published in editions of widely varying quality—is unparalleled for most other states of this era in Islamic

³³For brief theoretical overviews of the use of coins as physical remains, see both Donald Whitcomb, "Mamluk Archeological Studies: A Review," *Mamlūk Studies Review* 1 (1997): 97, and Hans Ulrich Vogel, "Introduction" to Special Theme Issue: Money in the Orient, *JESHO* 39 (1996): 209-11. The contents of several small hoards found during the Danish-sponsored digs at Hamah are described in *Hama: Fouilles et Recherches 1931-38, IV₃ Les petits objets médiévaux sauf les verreries et poteries* (Copenhagen, 1969).

history. As students of Mamluk history have long been aware, scattered throughout these works are numerous references to monetary events. These range in length from a brief sentence to entire chapters and works. They occur in the form of price quotations, exchange rate citations, discussions of confiscations, gifts or inheritances, the mention of a new coinage, and even the criticism of monetary policy. They are often precisely dated. These passages have provided the raw material for most treatments of Mamluk monetary history.³⁴

The discussions of money found in the Mamluk-era literary texts may be grouped into six categories. The first is that of treatises devoted specifically to money and economic matters. The best known examples of this type are certainly the two screeds composed by al-Maqrīzī, the *Ighāthah al-Ummah* and the *Shudhūr al-'Uqūd*.³⁵ To this short list should be added the near-contemporary work of al-Asadī, *al-Taysīr wa-al-I'tibār*.³⁶ A sub-category of this group are those treatises that address money from within the *fiqh* tradition. While of a normative bent, there are occasional observations about contemporary monetary developments. An example of this category is the "Nuzhat al-Nufūs" of Ibn al-Hāyim.³⁷ In general, material of this last type has not been fully exploited for the Mamluk period.³⁸ The second category contains the extended discussions of money found in the encyclopedic works of authors such as al-'Umarī or al-Qalqashandī. These are often longer than a page in length and discuss both Islamic money in general and

³⁴The importance of these literary passages for economic data was established and exploited by Sauvaire in the previous century. His pioneering work in culling the contemporary texts for references to money identified many of the basic passages still cited today. H. Sauvaire, "Materiaux pour servir à l'histoire de la numismatique et de la métrologie musulmanes," *Journal asiatique* 14 (1879): 455-533; 15 (1880): 228-77, 421-77; 18 (1881): 499-516; 19 (1882): 23-77, 97-163, 281-327. The first systematic exploitation of this material for the Mamluk period is found in William Popper, *Egypt and Syria*, 41-79. For a discussion of the relative value of specific Mamluk era historians, see Bacharach, "Circassian Mamluk Historians and Their Economic Data," *Journal of the American Research Center in Egypt* 12 (1975): 75-87.

³⁵Al-Maqrīzī, *Ighāthah al-Ummah bi-Kashf al-Ghummaḥ*, ed. Muḥammad Muṣṭafá Ziyādah and Jamāl al-Dīn al-Shayyāl (Cairo, 1359/1940); cf. the translation by Adel Allouche, *Mamluk Economics: A Study and Translation of al-Maqrizi's Ighathah* (Salt Lake City, 1994). There have been numerous editions of the *Shudhūr* prepared. The latest is *Shudhūr al-'Uqūd fī Dhikr al-Nuqūd*, ed. Muḥammad 'Uthmān (Cairo, 1990).

³⁶Al-Asadī, *Kitāb al-Taysīr wa-al-I'tibār*, ed. 'Abd al-Qādir Ṭalīmāt (Cairo, 1968).

³⁷Aḥmad ibn Muḥammad Ibn al-Hāyim, *Nuzhat al-Nufūs fī Bayān Ḥukm al-Ta'āmil bi-al-fulūs*, Dār al-Kutub al-Miṣrīyah, ms. no. 1073 (*fiqh shāfi'ī*). Ibn al-Hāyim died in 815/1412.

³⁸For examples of the use of *fiqh* materials for earlier periods, see Brunshvig, "Conceptions monétaires chez les juristes musulmans (VIII^e - XIII^e siècles)," *Arabica* 14 (1967): 113-43; and A. L. Udovitch, *Partnership and Profit in Medieval Islam* (Princeton, 1970).

developments in Mamluk money in particular.³⁹ The third group are those specific citations of monetary information such as new coinage, exchange rates, or prices. Such observations are quite common in the chronicles. They usually are just one or two sentences in length, although occasionally some are much longer. They are much more common for developments in Egypt than they are for those in the Syrian provinces. Tables of these prices and exchange rates in particular are found appended to many modern studies of Mamluk economic history. Given the overlapping and repetitive nature of such tables, this type of information seems a good candidate for a web-based database, readily searched and easily updated.⁴⁰

The fourth category consists of anecdotal mention of money, as when an entourage is rewarded with coins, money is mulcted from someone out of favor, or troops are paid.⁴¹ Monetary information of this type—encountered as corroborating detail or casual aside to a bigger story—is both abundant (at least for Egypt) and valuable. Both specific and anecdotal monetary information are encountered in the fifth category, which consists of the observations and accounts of foreign travelers.⁴² Included in this grouping are the pilgrimage narratives of European travelers to the Holy Land, which, to my knowledge, have not been examined systematically for the monetary information they sometimes contain.⁴³ Last but not least, monetary terminology is found in Mamluk-era *belles lettres*, especially poetry, although the usual lack of chronological setting means care must be taken when material of this sort is utilized.⁴⁴

In fact, using all categories of the literary sources is not without risks. In some cases, for example, it is clear that the Mamluk-era author is simply wrong about events that occurred before his lifetime.⁴⁵ Other problems include incidents of

³⁹Al-'Umarī, *Masālik al-Aḥsār*, ed. Ayman Fu'ād Sayyid (Cairo, 1985), 14-15. Al-Qalqashandī, *Ṣubḥ al-A' shā fī Ṣinā'at al-Inshā'*, 14 vols. (Cairo, 1913-19), 3:439-40, 463-64.

⁴⁰A model of this sort of invaluable research tool, albeit in paper format, is Elizabeth Gemmill and Nicholas Mayhew's *Changing Values in Medieval Scotland: A Study of Prices, Money, and Weights and Measures* (New York, 1995), in which over 6000 prices for 24 commodities are tabulated, indexed and annotated.

⁴¹On the payment of troops, see David Ayalon, "The System of Payment in Mamluk Military Society," *JESHO* 1 (1958): 37-65, 257-96.

⁴²Cf. D. Sperber, "Islamic Metrology from Jewish Sources, II," *Numismatic Chronicle* 7th series, 12 (1972): 275-82; and W. Fischel, "Ascensus Barcoch," *Arabica* 6 (1959): 57-72; 152-72.

⁴³Cf. Symon Semeonis, *The Journey of Symon Semeonis from Ireland to the Holy Land*, ed. and trans. Mario Esposito (Dublin, 1960); Ludolph von Suchem, *Ludolph von Suchem's Description of the Holy Land and the Way Thither*, trans. Aubrey Stewart (London, 1895).

⁴⁴For a rare bit of poetry actually linked to a specific event, see Ibn Iyās, *Badā' i' al-Zuhūr* (Cairo, 1931), 1:565

⁴⁵De Bouard, for example, pointed out the unreliability of al-Maqrīzī for certain monetary developments before his lifetime. See "Sur l'évolution monétaire de l'Égypte médiévale," *L'Égypte*

scribal errors and the inconsistent use of terminology. These contemporary obstacles are in turn occasionally exacerbated by poor editorial decisions, as the following illustrates. In a discussion of the events of Muḥarram 699/October 1299, al-Maqrīzī wrote that a charge of one *kharrūbah* was leveled on every measure of wheat purchased in Cairo.⁴⁶ The word *kharrūbah* is glossed by the editor as a small piece of a copper coin, worth *one-tenth of a dirham* (emphasis added), citing Dozy's nineteenth-century Arabic/French dictionary. There are at least two problems with this assertion. First, while this meaning is indeed found in the dictionary, the source for the monetary value of the term is a history of the Almohades.⁴⁷ It is worth noting that there are significant differences between the coinage of the twelfth-century Maghrib and thirteenth-century Egypt. Secondly, one need only look at the exchange rates cited by al-Maqrīzī himself to see that such a value would be ludicrously high for the end of the thirteenth century. In his entry for 695/1295, for example, al-Maqrīzī wrote that the exchange rate of copper to silver was three "pounds" (*ratls*) of copper coins per two silver *dirhams*. Regardless of how much any individual copper coin weighed at the time (the numismatic record for copper coins for this period is sketchy), it is safe to assume that it took a good many to equal the one and a half "pounds" of coins necessary to exchange for a *dirham's* worth of silver. A *kharrūbah* may have been a piece of a copper coin, but given the previously known exchange rates, it is inconceivable that it could have been worth one-tenth of a *dirham*. While this is just one episode, it is not atypical of the problems encountered in some editions.

MAMLUK-ERA DOCUMENTS

In addition to the various literary sources mentioned above, there exist many contemporary documents, of both indigenous and foreign origin, that contain monetary data.⁴⁸ Perhaps the best known group of these documents are the Geniza materials produced by the Jewish community of medieval Cairo. While most Geniza texts date from Fatimid and Ayyubid times, a few specimens survive from the Mamluk era.⁴⁹ These contain frequent references to money, often revealing

contemporaine 30 (1939): 427-59. As Cahen has pointed out, this observation is the only merit of this article; "Monetary Circulation in Egypt," 331, note 14.

⁴⁶Al-Maqrīzī, *Kitāb al-Sulūk li-Ma'rifat Duwal al-Mulūk*, 2nd. ed., ed. Muṣṭafá Ziyādah and Jamāl al-Dīn al-Shayyāl (Cairo, n.d.), 1:899.

⁴⁷Dozy, *Supplement aux Dictionnaires Arabes* (Beyrouth, 1981 [reprint of the 1881 edition]), 1:xvii, 357.

⁴⁸For a general overview of the Mamluk documentary evidence, see D.P. Little, "Documents as a Source for Mamluk History," *MSR* 1 (1997): 1-13.

⁴⁹S. D. Goitein, "The Exchange Rate of Gold and Silver Money in Fatimid and Ayyubid Times. A Preliminary Study of the Relevant Geniza Material," *JESHO* 8 (1965): 1-46. Despite this title, nine

precisely dated information on the circulation and exchange of the many coinages found in the marketplace. Similar to the Geniza, a collection of around 200 letters concerning the Red Sea and Indian Ocean trade was found during excavations of the port of Quseir. While these were first thought to date from the Mamluk period, subsequent examination by Li Guo has established that most date from the late Ayyubid era. Nevertheless, the possibility remains that a few are of Mamluk provenance. Whatever the case, dynastic boundaries aside, since preliminary surveys revealed the existence of much monetary information in this material, the publication of these letters is eagerly awaited.⁵⁰

Another promising documentary source of monetary information are *waqf* deeds. Several caches of these endowments are known, and while their systematic examination is in its infancy, they are clearly fertile ground for those interested in monetary matters.⁵¹ (The same observations hold for the Ḥaram al-Sharīf collection, which includes not only endowment deeds but wills, inventories and other documents⁵²). Coinage and monetary values are frequently mentioned in these documents, revealing important aspects of the workings of Mamluk money. For example, the existence of several different coins circulating simultaneously is confirmed by the *waqf*-administrators' struggles to keep track of exchange rates and differing monies of account.⁵³

Finally, there are contemporary documents of foreign origin, usually preserved in European archives, that contain useful information. Copies of treaties between the Mamluks and their Italian trading partners survive, for example. While few in number, these treaties occasionally yield the odd bit of monetary data.⁵⁴ A much larger corpus of materials are the commercial records of the merchants from the Italian city-states. These archives have been exploited to good effect by Ashtor and others, but are by no means exhausted. These documents include not only

of the documents discussed date from the Mamluk period.

⁵⁰See Donald Whitcomb, "Mamluk Archeological Studies," 99. These documents are currently being edited by Li Guo; see his forthcoming article "Arabic Documents from Quseir (1): Business Letters," *Journal of Near Eastern Studies*, in which Guo provides a description of the corpus, along with several edited letters.

⁵¹J.-C. Garcin and M. A. Taher, "Enquête sur le financement d'un *waqf* égyptien du xv^e siècle: Les comptes de Jawhar al-Lala," *JESHO* 38 (1995): 262-304; Gilles Hennequin, "Waqf et monnaie dans l'Égypte Mamluke," *JESHO* 38 (1995): 305-12.

⁵²See Donald P. Little, *A Catalogue of the Islamic Documents from al-Ḥaram aš-Šarīf in Jerusalem* (Beirut, 1984).

⁵³See Muḥammad Muḥammad Amīn, *Al-Awqāf wa-al-Ḥayāh al-Ijtīmā'iyah fī Miṣr, 648-923/1250-1517* (Cairo, 1980), 297-99.

⁵⁴Cf. J. Wansbrough, "Venice and Florence in the Mamluk Commercial Privileges," *BSOAS* 28 (1965): 483-523.

price lists and exchange rates, but also information about the metrology and purity of coins which circulated in the Mamluk market places. In one case, for example, evidence found in Venetian trading records reveals that some Venetian merchants knew that the purity of the Armenian trams mentioned above was approximately two-thirds silver content. As this fineness matched that of the contemporary Mamluk *dirhams*, it helps explain why these trams are so often found mixed with Mamluk *dirhams* in hoards which date from the eighth/fourteenth century.⁵⁵

Taken *in toto*, this non-numismatic material has proven to be a mine of information for Mamluk monetary history. This mine is far from being exhausted, thanks in part to the regular appearance of new editions. Admittedly, the classification of texts offered above is somewhat arbitrary. Be that as it may, it should be emphasized that none of these works were written for the express purpose of providing monetary and economic data for modern historians, and therefore the monetary information found in them must be evaluated carefully. Specifically, this information should, whenever possible, be meshed with the data derived from the surviving coins. This is especially so since these sources are often completely silent about developments that are suggested by the numismatic record. Any study of Mamluk money that aims for thoroughness should make use of both the written and the numismatic evidence. Unfortunately, this has rarely been done in most studies undertaken to date.

THE SCHOLARSHIP

Modern scholars have not ignored Mamluk monetary history as a field of inquiry. The more than 135 entries in the "Numismatics: Including Metrology and Monetary History" section of the electronic Mamluk Bibliography project are testament to that.⁵⁶ An examination of each of these works is beyond the scope of this article. I will instead restrict my comments to the following observation: scholarship on Mamluk money is marked by two major divides. The first has to do with theoretical assumptions of how pre-modern money circulated. Significant differences of interpretation exist in the studies. The second has to do with usage of sources. The scholarship may be divided into works based primarily on the coins, those based primarily on the literary and documentary data, and those which made use of both. While these divisions may strike some as crude, they hold up under scrutiny.

⁵⁵See Alan Stahl, "Italian Sources for the Coinage of Cilician Armenia," *Armenian Numismatic Journal* 15 (1989): 59-66. Cf. Schultz, "Mamluk Money," 156-59.

⁵⁶The URL of the Mamluk Bibliography is: <http://www.lib.uchicago.edu/LibInfo/SourcesBySubject/MiddleEast/MamBib.html>. This does not include the many works that touch upon monetary issues but which are listed within the broader "Economics" section of the bibliography.

THE THEORETICAL DIVIDE

In order to describe this divide, it is necessary to begin with some basic definitions. Minor details may vary, but most definitions of money define it in terms of function: money serves as a store of value, a measure of value, and a means of exchange. A coin, of course, is just one of many possible objects that fulfill the roles of store of value and means of exchange.⁵⁷ Before the widespread acceptance of fiat money in the last half century, a coin's value is usually held to have been determined by three elements. The first was the value of its raw material (usually bullion), or what is usually called its *intrinsic* value. The remaining two elements are said to be determined by the actual production of the coins. They are the cost of minting and the profit to the coin maker. Together, the intrinsic value of the bullion combined with the cost and profit of minting make up the coin's *extrinsic* (or *par*) value. Few would disagree that for coins struck in the precious metals of gold and silver, their bullion content was the major factor of their extrinsic value. Once coins entered the market place, and assuming that that marketplace was well-regulated, it is assumed that coins would circulate at their extrinsic value.

Invariably, however, once any coin entered circulation, it would encounter both coins of its own type and possibly other types of coins as well. How these coins circulated together is usually said to be governed by the principle known as Gresham's Law. This law states that when a coin of low intrinsic value circulates with a coin of equal extrinsic but higher intrinsic value, the first coin will drive the second coin out of circulation. Or as it is sometimes stated, "bad money" (coins of low intrinsic value) drives out "good money" (coins of higher intrinsic value). Thus if two gold coins are said to be worth the same (have the same extrinsic value), but one has more gold in it—i.e. it is either heavier or of a higher purity—the holder of the coins will spend the one with less gold and hoard the one with more gold.

Gresham's law appeals to common sense. It is important to note, however, that this model rests upon the assumption that the declared extrinsic value of a coin can be maintained (or guaranteed or enforced) after the coin enters circulation. A substantial body of literature now argues that it is doubtful that any medieval government (or other issuing authority) had the ability to do so.⁵⁸ In the absence

⁵⁷The system of valuation role of money is fulfilled by what is often called the "money of account." For the role of "monies of account" in pre-modern monetary systems, see Peter Spufford, *Money and Its Use in Medieval Europe* (Cambridge, 1988), 411-14. For the money of account known as the *dīnār jayshī*, used to calculate the value of *iqṭā's* in medieval Egypt, see Richard Cooper, "A Note on the *dīnār jayshī*." *JESHO* 16 (1973): 317-18.

⁵⁸Among the important exponents of this theoretical approach for the medieval Islamic world in general, and the Mamluks in particular, is Gilles Hennequin. A good introduction to his approach

of this ability, the "official extrinsic value" of a coin would become meaningless, as once it entered circulation it would find its own value in relation to the other coins present. This value would be determined by a number of factors, such as bullion content, supply of and non-monetary demand for bullion, whether a coin was acceptable for payment of taxes and dues, consumer preference (which for Muslims might show itself in a reluctance to accept coins with overt Christian images), etc. In such a monetary marketplace, "dinars and dirhams, even when issued by the same mint at the same time, were as much two separate currencies as are pounds and dollars today. The operation of Gresham's law takes on a different character in such a situation, and such terms as 'gold-standard' or bi-metallism' become virtually meaningless."⁵⁹

The implications of this revision of how medieval money circulated for our understanding of the Mamluk monetary system are wide-ranging. If this interpretation is accepted then the conclusions reached in much of the earlier research must be revisited, and the evidence cited therein must be reexamined. I find the evidence marshaled in support of this approach convincing. First of all, there is little in the Mamluk-era sources to suggest that the Mamluk government was ever able to guarantee the extrinsic value of the coins it issued. Certainly attempts were occasionally made to enforce exchange rates, but there is no evidence of their long-term success. Secondly, there is ample numismatic evidence, primarily in the form of hoards, to show that gold and especially silver coins of widely varying weight, purity, and date and mint of origin circulated simultaneously.⁶⁰ Nor is there anything to suggest that this plethora of coinages caused any difficulty in the marketplace. Rather it was a known factor taken into account in business transactions.⁶¹ There is thus "no observable trend of bad coins driving good ones from circulation; rather good and bad coin coexisted peacefully at their respective values."⁶²

Furthermore, the assertions that Mamluk money was based on a series of "metallic standards" must be reevaluated. Balog, for example, wrote that the

is "Problèmes théoriques et pratiques de la monnaie antique et médiévale," *Annales islamologiques* 10 (1972): 1-57.

⁵⁹Michael L. Bates, "Islamic Numismatics (pt. 3)," *MESA Bulletin* 13 no. 1 (1979): 14.

⁶⁰Mamluk silver hoards, in particular, often include *dirhams* worn completely smooth from their extended time in circulation. The commonplace nature of this phenomenon argues against the view that such hoards are only the bullion accumulations of jewelers.

⁶¹Rabie's assertion regarding the "problem of many types of coins circulating together" is not supported by literary evidence (*Financial System of Egypt*, 187-88).

⁶²R. Lopez, H. Miskimin, A. Udovitch, "England to Egypt, 1350-1500: Long-term Trends and Long-distance Trade," in *Studies in the Economic History of the Middle East*, ed. M. A. Cook (London, 1970), 124.

Mamluks first adhered to a gold-silver bi-metallic system, in which the silver "supported" the gold, and then a silver-copper system, with the copper supporting the value of the silver.⁶³ This view has percolated widely, yet is no longer tenable.⁶⁴ Three observations are usually cited to support the existence of these standards. The first involves the exchange rates mentioned in the Mamluk sources, in which the first coin listed has been interpreted as representing the standard coinage. For example, an exchange rate stating that one *dīnār* was worth twenty *dirhams*, as it was in 699/1299-1300, has been used to argue that Mamluk money was based on a gold standard in that year.⁶⁵ Such a conclusion ignores a fundamental aspect of these exchange rates; they are statements of relative value between two different currencies, and are therefore reversible. Not only is a *dīnār* worth twenty *dirhams*, but twenty *dirhams* are worth one *dīnār*. Neither coin is based on the other, rather their respective values are being defined in terms of the other. Secondly, the quoting of prices in coins of one metal rather than those of another is often cited as evidence of metallic standards. Such price listings more accurately reflect what was the appropriate coinage for the transaction being discussed, or perhaps what coin was most commonly available, but do not by themselves prove that coins of that type formed a monetary standard. Thirdly, the absence of known coins of specific metals in specific years is often cited as evidence of the abandonment of a standard. The problems of arguing from a lack of coins have already been alluded to, but in this case, the numismatic record itself disproves any such assertion. A survey of the coin production of the Cairo mint reveals that precious metal coins were minted with almost yearly regularity throughout the entire period of Mamluk rule. Specimens of such coins are known from the reigns of all but the most ephemeral puppet sultans. Any suspensions of mint activity in gold or silver are best explained as temporary or short-term disruptions brought on by such factors as acute bullion shortage, hoarding, political uncertainty, etc. There seems little doubt, therefore, that assertions of metallic standards are little more than the anachronistic application of nineteenth century assumptions of monetary behavior to the Mamluk context.

THE USE OF SOURCES

Even the most cursory examination of the scholarship devoted to Mamluk monetary history reveals the existence of three approaches to the available source material.

⁶³Balog, *CMSES*, 39-41.

⁶⁴Cf. its use by Archibald Lewis to dismiss some of the conclusions reached by Janet Abu-Lughod, in his review of her *Before European Hegemony: The World System, A.D. 1250-1350* (New York, 1989), in *Speculum* 66 (1991): 605-6.

⁶⁵This example, along with others, is found in Rabie, *The Financial System of Egypt*, 184-97. The exchange rate is from al-Maqrīzī, *Sulūk*, 1:900.

There are those works based primarily on the numismatic evidence, those which rely largely on the literary and documentary sources, and those in which both sets of information are utilized. Of course the borders between these categories are sometimes blurred, and the value of any respective work within this tripartite division is dependent on a number of factors which any critical reader is capable of evaluating. But while significant contributions have been made by works that fall in the first two categories, the most important advancements of our knowledge of Mamluk money history have emerged from the third.

There exist many articles about Mamluk money that may be labeled purely numismatic in content. These are based primarily on observations about a specific coin or group of coins. Examples of this type of work are announcements of new coin types, additions and corrections to existing coins or series, studies of dies, hoard announcements, analysis of peculiar coin legends, and the like. The information found within these works has provided some of the basic building blocks of our knowledge of Mamluk money, yet it is often left to someone else to do the building.⁶⁶ What this material frequently lacks is the application of the numismatic evidence to a wider context, to explain why a numismatic discovery is of significance to the non-numismatist. This shortcoming is often caused by a failure to consult the relevant written evidence. This may be due to simple lack of awareness or due to the existence of a language barrier. Balog himself is an example of the latter case. A close examination of his work reveals that, coin legends excepted, Balog did not read Arabic (an observation that makes his accomplishments all the more impressive). Some chroniclers, such as al-Maqrīzī, were available to him in French translation, but the bulk of his output was based on the numismatic evidence. As a result, and not surprisingly, there were certain problems in the numismatic record that he could not resolve. One such problem concerned the large copper objects struck in Cairo in 783 H. during the reign of al-Šāliḥ Ḥājjī: were they coins or weights? Another problem area involved the large Cairo copper coins of Qāyrbāy and Qānsūh al-Ghawrī: there were several questions about these *fulūs*, among them the chronology of minting, which Balog was unable to solve. In both cases these problems were later resolved (at least partially) by scholars who had access to the chronicle evidence.⁶⁷

At the other end of this source-usage divide are those works that depend primarily upon the contemporary literary and documentary evidence. Much has

⁶⁶Unfortunately, this information is sometimes buried in publications off the radar screen of many academics, and thus is not always incorporated into the wider field, but this is certainly not the fault of the authors.

⁶⁷For the 783 H. event, see Balog's comments in "Additions and Corrections," 146. In the case of the late Circassian coppers, see John L. Meloy, "The Copper Coinage of Late Mamluk Cairo, 1468-1517" American Numismatic Society 1992 Graduate Seminar unpublished paper.

been achieved in this category, but the failure to make use of all the available evidence renders many of the conclusions about Mamluk money found therein incomplete, incorrect, or in need of modification. This grouping includes works such as the economic histories of Labib and Ashtor that range wider than monetary history proper, but which of necessity contain discussions of money.⁶⁸ It also includes the studies by Popper and Ayalon, path-breaking when they appeared, but which also made little use of numismatic material (perhaps in part due to their publication before the arrival of the *CMSES*).⁶⁹ Unfortunately, there are many studies that have appeared since the *CMSES* was published that have continued to neglect the numismatic data. In these works, it is common to encounter only token acknowledgments that the coinage exists, or limited attempts at the incorporation of numismatic material which are imprecise at best, careless and misleading at worst.

An example of the former practice is the recent work by Ḥammūd al-Najīdī, which briefly acknowledges the existence of the *CMSES*, but then presents an overview of Mamluk money based entirely on the written evidence.⁷⁰ Examples of numismatic imprecision detract from the valuable work of Boaz Shoshan. In his dissertation and the three important articles which arose from it, Shoshan made major contributions to our knowledge of ninth/fifteenth century Mamluk monetary history.⁷¹ In general, his work is marked by a careful reading and thorough knowledge of the written sources, a sophisticated use of economic theory, and most especially an emphasis on the wider geographical context in which Mamluk monetary developments are to be understood. Yet his use of the numismatic evidence is frustratingly irregular and inconsistent. For example, in his analysis of Egyptian copper at the end of the eighth/fourteenth century, he asserts that the "numismatic evidence corroborates" literary accounts that this coinage was increasingly lighter in weight. As proof of this, he cites that coins struck in the first decades of the

⁶⁸Subhi Labib, *Handelsgeschichte Ägyptens im Spätmittelalter (1170-1517)* (Wiesbaden, 1965). (Abu-Lughod's utter dismissal of the work of Labib for this shortcoming is extreme and unwarranted: *Before European Hegemony*, 222, note 9); Eliyahu Ashtor, *A Social and Economic History of the Near East in the Middle Ages* (Berkeley, 1976). Ashtor also authored an article on the Circassian monetary system that makes little use of numismatic evidence: "Études sur le système monétaire des mamlouks circassiens," *Israel Oriental Studies* 6 (1976): 264-87.

⁶⁹William Popper, *Egypt and Syria under the Circassian Sultans*; David Ayalon, "System of Payment."

⁷⁰Al-Najīdī, Ḥammūd ibn Muḥammad ibn 'Alī, *al-Niẓām al-Naqdī al-Mamlūkī 648-6922 H./1250-1517 M.: Dirāsah Tārīkhīyah Ḥaqāqīyah* (Alexandria, 1993).

⁷¹Boaz Shoshan, "Money, Prices and Population in Mamluk Egypt, 1382-1517," Ph.D. dissertation, Princeton University, 1978; idem, "From Silver to Copper"; idem, "Money Supply and Grain Prices in Fifteenth Century Egypt," *Economic History Review*, second series, 36 (1983): 47-67; idem, "Exchange Rate Policies in Fifteenth Century Egypt," *JESHO* 29 (1986): 28-51.

ninth/fifteenth were lighter than those from the second half of the previous century, an observation gleaned from his "survey" of copper coins preserved at the American Numismatic Society.⁷² There are indeed lighter coins from the early fifteenth century, but their existence does not prove that lighter coins were struck in the last decade of the fourteenth century (which is what some of the Mamluk chroniclers assert). Only the numismatic evidence from that period can shed light on that. Shoshan's failure to specify what coins he surveyed, from what years, and from what mints, renders his "survey" of the *fulūs* so vague as to be meaningless.

Shoshan also occasionally ignores the numismatic evidence in situations where it could shed light on a thorny issue. For example, al-Maqrīzī wrote that a "*Kāmīlī*" *dirham* was circulating in Egypt at the beginning of the ninth/fifteenth century.⁷³ In his analysis of the developments in Mamluk silver in this period, Shoshan points out that these are troublesome citations, due mainly to the fact that it is not clear what kind of silver coin al-Maqrīzī was referring to.⁷⁴ Relying exclusively on literary evidence, Shoshan argues that this coin must be the *dirham* of the Ayyubid al-Malik al-Kāmil (615-35/1218-38). This is a creative explanation to a difficult problem, and Shoshan is correct in stating that the Ayyubid *Kāmīlī dirham* was a low purity silver coin. But it is a problematic assertion for a number of reasons. First of all, the dynamics of how large numbers of an old coin suddenly resurface after more than 150 years are left unexplored: Why then and not earlier? If it did happen, why is it not mentioned by other observers? Moreover, such a development is not supported by the numismatic evidence. I am not aware of a single Mamluk hoard from this era which contains Ayyubid silver.⁷⁵ In each of these examples and in others, Shoshan's lack of familiarity with the numismatic evidence undermines important aspects of his overall conclusions.

Finally, there are those few studies which follow good historical method and attempt to incorporate all the evidence available. Topping this list are the articles on Circassian monetary developments authored by Jere Bacharach, in which he was the first to carefully and systematically compare coin to chronicle, and chronicle to coin.⁷⁶ The result was deeper awareness and more nuanced knowledge of the

⁷²"From Silver to Copper," 108; see especially note 6.

⁷³Al-Maqrīzī, *Sulūk*, 3:1111; 4:166.

⁷⁴"Exchange Rate Policies," 44-46.

⁷⁵See the list of silver hoards in Schultz, "Mamluk Money," 152-55. Ayyubid silver is found in hoards dating from the beginning of the Mamluk sultanate, but these *dirhams* usually bear the names of later Ayyubid princes only.

⁷⁶Jere L. Bacharach, "Circassian Monetary Policy: Silver"; idem, "The Dinar versus the Ducat"; idem, "Circassian Monetary Policy: Copper." Cf. his Ph.D. dissertation, "A Study of the Correlation Between Textual Sources and Numismatic Evidence for Mamluk Egypt and Syria, A.H. 784-872/A.D. 1382-1468," University of Michigan, 1967.

parameters of the Mamluk monetary system than was present before. While some of his conclusions have been questioned, his approach cannot be. It remains the model to be followed. It is discouraging that it spawned few imitators.

On a smaller scale, this is the approach followed by Lutz Ilisch. In a series of articles buried in the *Münstersche Numismatische Zeitung*, Ilisch in particular made significant additions and corrections to the series issued by the Syrian mints.⁷⁷ His work is thorough in its attention to both literary and numismatic material. Attention should also be directed to two studies in Arabic that, when combined, offer the reader what is essentially an updated version of the CMSES (albeit only for Egypt), but with new specimens added and frequent incorporation of pertinent chronicle information. These are Sāmiḥ ‘Abd al-Raḥmān Fahmī’s *al-Wiḥdah al-Naqdīyah al-Mamlūkīyah* for the Bahri period, and Ra’fat al-Nabarāwī’s *al-Sikkah al-Islāmīyah fī Miṣr: ‘Aṣr al-Mamālīk al-Jarākisah* for the Circassian period.⁷⁸ It should be stressed, however, that the traditional Bahri-Kipchaq/Burji-Circassian division has little significance in the context of Mamluk monetary developments.

CONCLUSION

I conclude this essay with a plea for those who do not consider themselves numismatists to familiarize themselves with the Mamluk coinage and the approaches and concepts that govern its study. This information is accessible. While there is no substitute for hands-on examination of Mamluk coins—and this is not always easy to do—the general learning curve for the historian’s use of monetary information is not that steep. Numismatics was once a respected ancillary field of history, and numismatic inquiry deserves more than a cursory acknowledgment or outright dismissal as insignificant. Mamluk numismatic information is important and full of surprises. It also cannot be ignored if our understanding of the role of money in the Mamluk economy and society is to be increased. I introduced this essay with a passage from an article entitled “Numismatics Re-Monetized.” In this short but significant piece, Andrew Ehrenkreutz reminded those interested in medieval

⁷⁷Lutz Ilisch, “Beiträge zur Mamlukischen Numismatik,” *MNZ* (Nov. 1975): 5-10; idem, “Berichte über die Einführung neuer Kupfermünzen in Kairo im Jahr 759 H.,” *MNZ* (Feb. 1977): 3-4; idem, “Gegenstempel auf ägyptischem Inflationkupfer,” *MNZ* (Aug.-Dec. 1977): 8-9; idem, “Neue Materialien zur Münzprägung der Bahri-Sultane,” *MNZ* (Mar. 1981): 11-16; idem, “Inedita des ‘Abbasidenkalifen al-Musta‘in bi’llah aus Syrischen Münzstätten,” *MNZ* (Dec. 1982): 39-41.

⁷⁸Sāmiḥ ‘Abd al-Raḥmān Fahmī, *Al-Wiḥdah al-Naqdīyah al-Mamlūkīyah: ‘Aṣr al-Mamālīk al-Bahrīyah* (Jeddah, 1983); Ra’fat al-Nabarāwī, *Al-Sikkah al-Islāmīyah fī Miṣr: ‘Aṣr Dawlat al-Mamālīk al-Jarākisah* (Cairo, 1993). Cf. his Ph.D. dissertation, a copy of which is preserved in the library of the American Numismatic Society, “Maskūkat al-Mamālīk al-Jarākisah fī Miṣr: Nazmuhā wa-Qiyāmuḥā al-Naqdīyah,” University of Cairo, Faculty of Letters, 1981.

Islamic money to keep foremost in mind the economic functions of the coins studied.⁷⁹ At several points during the composition of this essay, I considered entitling it "Mamluk Monetary History Re-Numismatized," since I strongly believe that the fissure between those familiar with the Mamluk textual tradition and those aware of the numismatic record must be bridged in order for progress to continue in this field.

⁷⁹Andrew S. Ehrenkreutz, "Numismatics Re-Monetized," 207-18.