



Base-Metal Coinage Circulation in Byzantine Beirut 491–641 CE

Georges Abou Diwan

► To cite this version:

Georges Abou Diwan. Base-Metal Coinage Circulation in Byzantine Beirut 491–641 CE. *American Journal of Numismatics*, 2018, 30, pp.163-218. <hal-02913366>

HAL Id: hal-02913366

<https://hal.science/hal-02913366v1>

Submitted on 13 Aug 2020

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.



HAL Authorization

AMERICAN JOURNAL
OF NUMISMATICS

30

Second Series, continuing
The American Numismatic Society Museum Notes

THE AMERICAN NUMISMATIC SOCIETY
NEW YORK

2018

© 2018 The American Numismatic Society

ISSN: 1053-8356
ISBN 978-0-89722-354-6

Printed in China

CONTENTS

Editorial Committee	v
EDITORS' NOTE	vii
LLOYD W. H. TAYLOR. The Earliest Alexander III Tetradrachm Coinage of Babylon: Iconographic Development and Chronology	1
PAUL VĂDAN. The Posthumous Alexander Tetradrachms of Magnesia on the Maeander	45
OLIVER D. HOOVER. The Personification of Apameia	107
CLIVE STANNARD, JEAN-ALBERT CHEVILLON, AND ALEJANDRO G. SINNER. More Coins of the Pompeian Pseudomint from France	117
LUCIA CARBONE. The Unpublished Iberian Lead Tokens in the Richard B. Witschonke Collection at the American Numismatic Society	131
LIV MARIAH YARROW. Romulus' Apotheosis (<i>RRC</i> 392)	145
GEORGES ABOU DIWAN. Base-Metal Coinage Circulation in Byzantine Beirut, 491–641 CE	163
RUTH PLIEGO. Kings' Names on Visigothic Bronze Coins: A New <i>Minimus</i> from Ispali in the Name of Leovigild	219
DAVID YOON, SARA T. LEVI, ANNUNZIATA OLLÀ, AND GABRIELLA TIGANO Medieval Coins from the Site of San Vincenzo on the Island of Stromboli, Italy	233
LYCE JANKOWSKI. History of the Chinese Collection at the American Numismatic Society	251

AMERICAN JOURNAL OF NUMISMATICS

Ute Wartenberg
David Yoon
Editors

Oliver D. Hoover
Managing Editor

Editorial Committee

John W. Adams
Boston, Massachusetts

Jere L. Bacharach
University of Washington

Gilles Bransbourg
American Numismatic Society

Andrew Burnett
British Museum

Wolfgang Fischer-Bossert
Austrian Academy of Science

Evridiki Georganteli
Harvard University

Kenneth W. Harl
Tulane University

Jonathan Kagan
New York, New York

Paul T. Keyser
Google

John M. Kleeberg
New York, New York

John H. Kroll
Oxford, England

Ira Rezak
Stony Brook, New York

Stuart D. Sears
Westport, Massachusetts

Peter van Alfen
American Numismatic Society

Bernhard Weisser
*Münzkabinett
Staatliche Museen zu Berlin*

EDITORS' NOTE

The abundance of articles received for the *American Journal of Numismatics* in 2016–17 has given us the opportunity to get fully caught up with the calendar. What was originally planned to be volume 29 (2017) is being printed as two volumes instead: volume 29 (2017) and volume 30 (2018), which will be printed and mailed at the same time. We are already reviewing articles for volume 31, which we expect to send to readers in early 2019.

We are also very pleased to announce that ANS Fellow Nathan T. Elkins, Associate Professor of Art History at Baylor University, will be Co-Editor of *AJN* starting with volume 31, replacing Ute Wartenberg. He will oversee articles on ancient Greek and Roman topics, including the rest of the ancient European, West Asian, and North African world. ANS Associate Curator David Yoon will continue as Co-Editor of *AJN* for medieval, modern, and non-Western topics.

Ute Wartenberg
David Yoon
Editors

Oliver Hoover
Managing Editor

Base-Metal Coinage Circulation in Byzantine Beirut 491–641 CE

GEORGES ABOU DIWAN*

This paper addresses the circulation of Early Byzantine coins produced between 491 and 641 CE and found in 41 archaeological excavations in Beirut Central District, covering significant parts of the Byzantine city of Berytus. The purpose of the study is to identify the pattern of coin supply throughout this period with a re-examination of previous assumptions. A comparative analysis is established with numismatic data found in neighboring sites in order to highlight common and distinctive patterns of supply at the regional level.

INTRODUCTION

The circulation of Early Byzantine coins found in Beirut has been discussed in various coin reports and hoard studies over the last decade. Most of these publications have primarily focused on the reign of Anastasius I, given the substantial numbers of coins and hoards related to this emperor. The growing number of archaeological excavations conducted in Beirut Central District since 2005 has enabled the undertaking of a comprehensive study on the circulation of the copper coinage minted during the sixth and early seventh century CE. The

*Lebanese University, Fanar-Lebanon (georges.aboudiwan@ul.edu.lb).

numismatic material which forms the core of the paper is composed of 1,430 single coin finds and 280 coins from hoards found in 41 archaeological excavations of various settlement types covering significant parts of the Byzantine city of Beirut. While part of this material has been published in the form of excavation coin reports¹ or hoard studies,² a substantial number of coins upon which this study is based consists of unpublished coin finds uncovered by teams supervised by the Directorate General of Antiquities and the Lebanese University. The chronological framework of this research ranges from the year 498 CE when Anastasius I undertook a major monetary reform and established a distinctive monetary system that broke with the Late Roman monetary tradition and continued until the end of Byzantine rule in Syria between 636 and 641 CE. The dating and attribution of the sixth- and early seventh-century coinage found in Beirut was mainly based upon the corpus established by Hahn (*MIB* I–III) and its recent updates in English (*MIBE* and *MIBEC*). However, other dating criteria have been taken into account specifically regarding the African *nummi*, Vandalic, and Ostrogothic coinage.³ It should be emphasized in this connection that the

1. K. Butcher, "BEY 006 The Coins—Preliminary Report," *Bulletin d'Archéologie et d'Architecture Libanaises* 1 (1996): 207–11.; K. Butcher, "Coinage in Sixth Century Beirut: Preliminary Observations," *Berytus* 43 (1997–98): 173–80; K. Butcher, "Small Change in Ancient Beirut. The Coin Finds from BEY 006 and 045: Persian, Hellenistic, Roman, and Byzantine Periods," *Berytus* 45–46 (Beirut: Faculty of Arts and Sciences, American University of Beirut, 2001–2): 257–77; Z. Sawaya, "Bey 020, Preliminary Report of the Excavations 1995: Coins," *Bulletin d'Archéologie et d'Architecture Libanaises* 2 (1997): 150–56; Z. Sawaya and F. Rahal, "BEY 004 et BEY 013, les monnaies. Rapport préliminaire," *Bulletin d'Archéologie et d'Architecture Libanaises* 3 (1998–99): 165–68; Z. Sawaya, *Monnaie de JEM 002, JEM 003 et JEM 004*, *Bulletin d'Architecture et d'Archéologie Libanaise*, hors-série XIII (Beyrouth: Direction Générale des Antiquités, 2016), 185–227.

2. Butcher, "Small Change," 283–86; P. Belien, "Hoard of Byzantine Folles from Beirut," *Numismatic Chronicle* 165 (2005): 314–22; and G. Abou Diwan, "Un trésor monétaire de Beyrouth. À propos de la circulation des monnaies d'Anastase au VI^e siècle," *Numismatic Chronicle* 168 (2008): 303–19.

3. DOC 1; T. V. Buttrey and R. B. Hitchner, "The Coins—1976," in *Excavations at Carthage 1976 Conducted by the University of Michigan*, Vol. I: *Tunis*, ed. J. H. Humphrey, 157–97 (Ann Arbor: University of Michigan, 1978); MEC I; C. Morrisson, "Coin Finds in Vandal and Byzantine Carthage: A Provisional Assessment," in *The Circus and a Byzantine Cemetery at Carthage*, ed. J. H. Humphrey, 423–36 (Ann Arbor: University of Michigan Press, 1988); C. Morrisson, "L'Atelier de Carthage et la diffusion de la monnaie frappée dans l'Afrique Vandal et Byzantine (439–695)," *Antiquité Tardive* 11 (2003): 65–84; E. A. Arslan, "Dalla classicità al Medioevo. La moneta degli Ostrogoti," *Numismatica e Antichità Classiche* 33 (2004): 429–62; M. A. Metlich, *The Coinage of Ostrogothic Italy* (London: Spink, 2004); G. Bijovsky, "From Carthage to the Holy Land," *Israel Numismatic Research* 6 (2011): 163–73; G. Bijovsky, *Gold Coin and Small Change: Monetary Circulation in Fifth–Seventh Century Byzantine*

study is mainly based on the production date of the retrieved coins and not the date at which they entered the archaeological record since the stratigraphic data of most of the excavations from which these coins were retrieved is still being processed. A detailed analysis integrating stratigraphic data and pottery dating will be considered upon completion and publication of the relevant archaeological excavation reports.⁴ This paper addresses the following issues: the identification of the pattern of coin circulation in Beirut; a reexamination of previous assumptions regarding individual reigns, namely that of Anastasius I; establishing comparative analysis with numismatic data found in neighboring provinces; and an assessment of the effect that major events of the period had on base metal coin circulation. Such events include the earthquake of 551 CE and the Persian occupation between 613 and 630 CE.

ANASTASIUS I (491–518 CE)

In 498 CE, Anastasius I undertook a major monetary reform and introduced a new coinage system based on an original set of denominations with face values indicated on the reverse: the *folles* (40 *nummi*) and its fractions, the half-*folles* (20 *nummi*) and quarter-*folles* (10 *nummi*).⁵ Hahn subdivides the coins produced during this reform into two different issues and notes that the second issue was produced in 507 CE, at the beginning of a new indiction. The coinage of the second issue is henceforth characterized by a variety of field and officina marks on the reverse.⁶ A second reform took place in 512 CE that doubled the weight of the *folles*, half-*folles*, and quarter-*folles* and introduced the eighth-*folles* (5 *nummi*) as a new denomination. Both reforms were of great importance and are mentioned in various textual sources.⁷

Palestine, Polymnia Numismatica antica e medievale Studi 2 (Trieste: Edizioni Università di Trieste, 2012).

4. See the recommendations suggested by K. Lockyear, "Where Do We Go From Here? Recording and Analysing Roman Coins from Archaeological Excavations," *Britannia* 37 (2007): 222, regarding the study and analysis of excavation coins.

5 D. M. Metcalf, *The Origins of the Anastasian Currency Reforms* (Amsterdam: Adolf M. Hakkert, 1969); P. Grierson, "The Monetary Reforms of Anastasius and Their Economic Consequences," in *The patterns of monetary development in Phoenicia and Palestine in antiquity, proceedings of the International Numismatic Convention, 27–31 December 1963*, ed. A. Kindler, 283–302 (Tel Aviv: Schocken, 1967); M. F. Hendy, *Studies in the Byzantine Monetary Economy: c. 300–1450* (Cambridge: Cambridge University Press, 1985), 475–96.

6 *MIBE*, 29.

7. See *MIBE*, 14 for all the sources mentioning these reforms.

The coins of Anastasius I are the most prolific of the sixth and early seventh century CE. A total of 655 coins are attested in the archaeological record of 34 sites.⁸ Hoard materials from Beirut bring further evidence to support the profile that emerges from the single finds. Five different sixth-century hoards have been recorded to date. All the coins of these hoards are predominantly pre-512 Anastasius issues. Three of these hoards have been published consecutively by Butcher (BEY 006), Belien (BEY 011), and Abou Diwan (BEY 004).⁹ Two other unpublished hoards have also been recorded in BEY 006 and BEY 002. The small-module coinage minted between 498 and 512 CE represents 91% of the number of single coins belonging to this emperor. An identical pattern stands out from hoards with 99%. It should be noted that most of these hoards were found in destruction layers related to the devastating earthquake of the year 551 CE. The composition of these hoards not only indicates the use of Anastasius's small-module issues as legal tender until the middle of the sixth century but clearly shows a marked preference for the small-module issues and undoubtedly proves that these coins were not demonetized after 512 CE.¹⁰ The continued use of Anastasius's small-module coinage is furthermore supported by numerous late sixth-century archaeological deposits as shown by Butcher in BEY 006 and Abou Diwan in BEY 004.¹¹ The exhibited profile clearly highlights the overwhelming predominance of small-module issues of Anastasius I in Beirut and reinforces the assumptions previously noted by Butcher, Belien, Abou Diwan, and recently by Sawaya¹² (Table 1 and Figs. 1–3).

8. The calculated number of coins expressed in *nummia* of Anastasius I mentioned in Abou Diwan 2008, tab. 8–9 is 10,572 *nummi*. It includes the single coins found in ten sites (BEY 002, BEY 004, BEY 020, BEY 027, BEY 045, BEY 125, BEY 133, BEY 142, and JEM 002) in addition to the following hoards found in BEY 004, BEY 002, and BEY 011.

9. Butcher, "Small Change," 283–86; Belien, "Hoard of Byzantine Folles"; Abou Diwan, "Un trésor monétaire."

10. Contra H.-C. Noeske, *Münzfunde aus Ägypten I. Studien zu Fundmünzen der Antike* 12 (Berlin: Gebr. Mann Verlag, 2000), 151–52, arguing that small-module issues were withdrawn from circulation in 512 CE.

11. Butcher, "Small Change," 105; Abou Diwan, "Un trésor monétaire," 310–313.

12. Butcher, "Small Change," 105–108; Abou Diwan, "Un trésor monétaire," 313–315; Sawaya, *Monnaie*, 85–87.

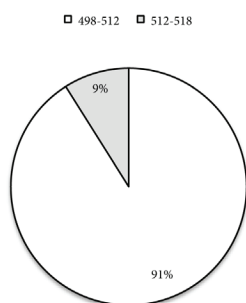


Figure 1. Percentage of single coins in excavations/ date of reform (excluding *minimi*).

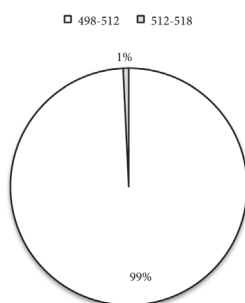


Figure 2. Percentage of coins found in hoards/ date of reform (excluding *minimi*).

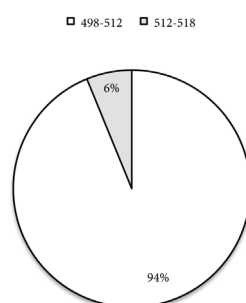


Figure 3. Percentage of single coins and coins found in hoards during excavations.

Table 1. Composition of all known hoards in Beirut and Sarafand (Sarepta).

	498– 512	512– 518	518– 527	527– 538	498– 538	538– 565	Closure date	Burial date
BEY 002	24 M 7 K 10 l		2 M	2 M			538	?
BEY 004	41 M 25 K 9 l	1 M 1 l		1 M		1 l	542– 547	551
BEY 006	63 M						512	551
BEY 006	60							551
BEY 011	22 M		5 M	6 M	1 M		538	551
Sarafand	184 M 39 K						512	After 512

The meager proportions of Anastasian large-module issues as well as the relatively low number of the retrieved coins of Justin I and Justinian pre-reform coins (527–538 CE) seem peculiar when compared to other site finds where the opposite profile appears.¹³ Museum collections point in the same direction, as

13. Butcher, “Small Change,” 104, fig. 76; Bijovsky, *Gold Coin*, 216–17. The small-module coinage does not seem to have circulated in substantial numbers in Anatolia, as revealed through the coin finds of Sardis and Sagalassos for instance: see H. W. Bell, *Sardis*, Vol. XI, pt. I: Coins, 1910–1914 (Leiden: Brill, 1916); and S. Scheers, “Catalogue of the Coins Found in 1992,” in *Sagalassos II: Report on the Third Excavation Campaign of 1992*, ed. M. Waelkens and J. Poblome (Leuven: Leuven University Press, 1993), 254; S. Scheers, “Catalogue of the Coins Found in 1993,” in *Sagalassos III: Report on the Fourth Excavation Campaign of 1993*, ed. M. Waelkens and J. Poblome (Leuven: Leuven University Press, 1995), 314; S. Scheers,

has been noted by Gândilă.¹⁴ The exhibited pattern which stands out through the individual coin finds and the hoard assemblages in Beirut indicates that small-module issues formed the backbone of base-metal monetary mass in circulation up to the middle of the sixth century. The supply of small-module issues does not seem to have been interrupted with the inauguration of the second monetary reform in 512 CE. Hoard evidence points to a constant supply of small-module issues at least up to the end of Anastasius's reign. The small-module coinage, which was withdrawn in other provinces, might have possibly been injected in our view into the markets of Berytus after 512 CE.¹⁵ To address Butcher's questions, the bias for Anastasius I small-module issues in Beirut does not seem to be the result of a sudden influx of coins under his reign, nor is it caused by a great number of archeological deposits dating back to this specific period since the recorded samples in our database come from a variety of sites with different formation processes.¹⁶ Moreover, the coins of Anastasius I predominate within the coin assemblages of each of these sites. It is very unlikely that the consignments of coins that reached Berytus between 498 and 512 CE would have been sufficient to constitute the main form of small change during the following two decades (Fig. 4). The detected pattern in Beirut seems to encompass a large

H. Vanhaverbeke, and J. Poblome, "Coins Found in 1994 and 1995," in *Sagalassos IV: Report on the Survey and Excavation Campaigns of 1994 and 1995*, ed. M. Waelkens and J. Poblome (Leuven: Leuven University Press, 1997), 332; S. Scheers, "Coins Found in 1996 and 1997," in *Sagalassos V: Report on the Survey and Excavation Campaigns of 1996–1997*, ed. M. Waelkens and L. Loots (Leuven: Leuven University Press, 2000), 525. Coin finds from the province of Scythia show a clear bias towards Anastasius I second reform coinage with 100 against 37 for the first reform. Moreover, the reign of Justin I exhibits a higher number of coins with 273 specimens: see A. Gândilă, "Some Aspects of the Monetary Circulation in the Byzantine Province of Scythia during the 6th and 7th Century," in *Numismatic, Sphragistic and Epigraphic Contributions to the History of the Black Sea Coast*, ed. I. Lazarenko, Acta Musei Varnaensis 7 (Varna: Zograf, 2008), 306, table 2. Coin hoards from the Balkans and Asia Minor show a clear preference for large module issues of Anastasius I; out of 33 recorded hoards, 30 contained large-module issues (Nicopolis ad Nestum, Pétrôchôri, Dolno Sachrane, Pomorie, Osenovo, Rjahovec, Žâlâd, Murighiol, Blagoevgrad, Godiačevo, Thasos, Orese, Selce, Vojnica, Éleusis, Thèbes, Gjegjovë, Niš, Pernik, Zelenigrad, Prahovo, Sadovec, Golemanovo kale I, Barovo, Kale, Klinovac, Sekulica A, Suva Reka, Dobra, Velike Gradiste, Cudalbi) and eight contained small-module issues (Nova Mahala, Bargala A, Orese, Caricin Grad C, Zelenigrad, Veliki Gradac, Suva Reka, Velike Gradiste): see C. Morrisson, V. Popović, and V. Ivanišević, *Les Trésors monétaires byzantins des Balkans et d'Asie Mineure (491–713)* (Paris: Lethellieux, 2006), 120–415.

14. A. Gândilă, "Early Byzantine Coin Circulation in the Eastern Provinces: A Comparative Statistical Approach," *American Journal of Numismatics* 21 (2009): 165, fig. 2a.

15. Metcalf, *Origins*, 94–5 considers "the possibility that the small folles were effectively withdrawn in some provinces but allowed to remain in use in others".

16. Butcher, "Small Change," 104.

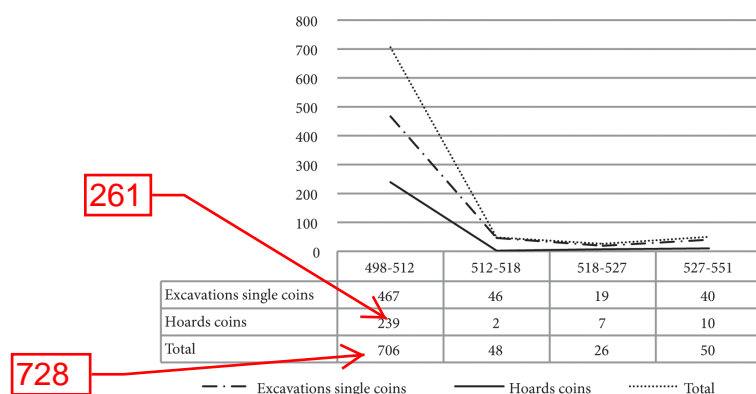


Figure 4. Pattern of coins including *follis*, half-*follis*, and quarter-*follis* (498–551 CE).

area of the province of Phoenice Maritima. It is expected that Sidon and Tyre would probably exhibit a similar profile since the site of Sarafand (Sarepta), located between those two cities, follows that of Beirut.¹⁷ The existence of a provincial pattern of supply seems very plausible; however, more data is required to confirm this pattern, especially from coastal cities located north of Berytus (e.g., Byblus, Botrys, and Tripolis). Numismatic material from different sites located in the Galilee exhibits the clear predominance of Anastasius I small-module coinage, as shown by Bijovsky.¹⁸ The author argues that geographic distance contributed to the continued use of small-module coins of Anastasius I.

A close inspection of the distribution of the small-module coinage of Anastasius I shows an obvious decrease in the total number of coins between the first series (498–507 CE) and the second series (507–512 CE), with 242 specimens and 177 specimens, respectively. However, this bias is mainly due to the dramatic reduction in the number of quarter-*folles* (–86.2%) from 145 specimens in the first series down to 22 in the second series. Quarter-*folles* seem to have remained in circulation until the middle of the sixth century as indicated by two hoards found in BEY 002 (ten specimens) and BEY 004 (nine specimens), with a closure date going back to 538 CE for the first hoard and a burial date in 551 CE for the second hoard (Table 1).¹⁹ The find profile exhibited

17. G. Abou Diwan, Sarepta V. *The Coin Finds of Areas I and 2 (X,Y): Persian, Hellenistic, Roman, Byzantine and Medieval Periods*. Bulletin d'Archéologie et d'Architecture Libanaises, Hors-série XIV (Beyrouth: Direction Générale des Antiquités, 2016), 55–56.

18. Bijovsky, *Gold Coin*, 18.

19. For the distinction between burial and closure dates see K. Lockyear, “Dating Coins, Dating with Coins,” *Oxford Journal of Archaeology* 31 (2012): 203–7.

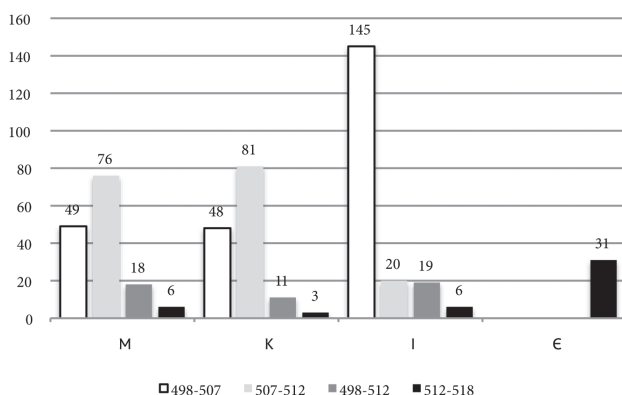


Figure 5. Number of single coins per denomination/date of reform.

for quarter-*folles* in Beirut contrasts with that of the province of Palaestina Prima and Palaestina Secunda where the denomination is completely absent.²⁰ Bijovsky argues therefore that the quarter-*folles* was not put into circulation in these provinces. Furthermore, quarter-*folles* are comparatively scarce in major museum collections as well as numerous other archaeological sites according to Gândilă.²¹ The number of *folles*, on the other hand, exhibits a 55.1% increase from 49 coins belonging to the first series to 76 coins of the second series. An analogous pattern is also noted in the composition of hoards in Beirut (BEY 002, BEY 006, BEY 004, and BEY 011). The half-*folles* follow closely a similar pattern with a 68.7% increase (rising from 48 to 81 coins) between the first and the second series. A similar find profile for both *folles* and half-*folles* is noted by Bijovsky in Palaestina Prima and Secunda.²² Hahn argues for an increase in the monetary volume of production during the second series.²³ The second monetary reform undertaken by Anastasius I in 512 CE does not seem to have had a significant impact in Beirut. The low denominations produced between 512 and 518 CE outnumber large-module *folles* (6 *folles*, 2 half-*folles*, and 33 eighth-*folles*). This profile might possibly reflect a deliberate selection of coins closer in size and weight to the small-module issues.²⁴ The opposite profile is detected by Bijovsky in Palaestina Prima and Secunda. The author interprets the absence of small fractions during the second monetary reform by the devaluation

20. Bijovsky, *Gold Coin*, 181.

21. Gândilă, "Early Byzantine," 219, fig. 21a–b.

22. Bijovsky, *Gold Coin*, 181.

23. *MIBE*, 29.

24. I owe this suggestion to Dr. Andrei Gândilă, personal communication.

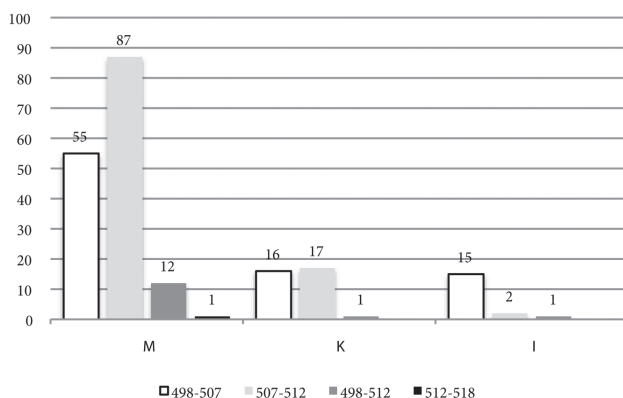


Figure 6. Number of coins found in hoards per denomination/date of reform.

of small-module coinage at half its nominal values (Figs. 5–6).²⁵ The Anastasian *minimi* are found in substantial numbers in the coin assemblage of Beirut. Hahn considers that the *minimi* coinage was revalued and remained in use after the reform of 498 CE, although the distinction between pre- and post-reform coins is not possible according to him.²⁶ Bijovsky interprets the widespread presence of Anastasian *minimi* as an attempt to compensate for the absence of the small fractions of the *folles*.²⁷ However, this conclusion does not seem to hold for Beirut, where both denominations are recorded. The assumption made by Bijovsky regarding a longer period of issue of the Anastasian *minimi*, however, seems very plausible.²⁸ Indeed, they seem to have remained in circulation in Berytus up to the reign of Justinian I, when African *nummi* started to reach the markets of the city. However, the Anastasian *minimus* does not seem to be the only small denomination to have been legal tender in Beirut. Butcher argued that fourth- and fifth-century coins recovered from sixth-century contexts might indicate their use as a medium of small change during the sixth century.²⁹

In terms of coin supply, the mint of Constantinople stands out as the main provider of currency in single finds as well as in hoards, followed by the mints of Nicomedia and Antioch (Figs. 7–9). A similar pattern of supply is detected in the town of Sarafand (Sarepta)³⁰ and further towards the south in the provinces

25. Bijovsky, *Gold Coin*, 181.

26. *MIBE*, 28.

27. Bijovsky, *Gold Coin*, 183.

28. Bijovsky, *Gold Coin*, 183.

29. Butcher, “Small Change,” 97.

30. Abou Diwan, *Sarepta V*, 54–56.

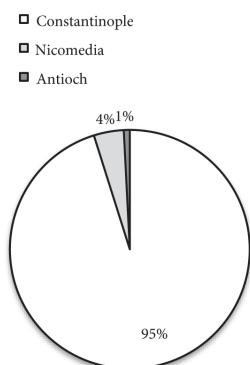


Figure 7. Percentage of single coins in excavations/mint (including *minimi*).

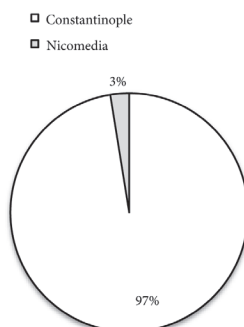


Figure 8. Percentage of coins found in hoards/mint (including *minimi*).

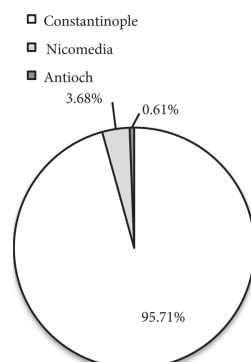


Figure 9. Percentage of single coins and coins found in hoards/mint (including *minimi*; uncertain mints not included).

of Palaestina Prima and Secunda.³¹ The predominance of the Constantinople mint seems coherent with the results emerging from the quantitative analysis conducted on major museum collections by Gândilă. According to the author, museum coin collections are a solid indicator of the pattern of coin production. Coins of Antioch, which reopened with the introduction of the second monetary reform in 512 CE, seem less frequent than those of Constantinople and Nicomedia in numerous archaeological sites, namely Tomis, Corinth, Sardis, Constantinople, and Pisidian Antioch.³² The low proportion of the coins minted in Antioch recorded in both Beirut and Sarafand (Sarepta) is due to the marked preference for small-module issues (498–512 CE). The breakdown of denominations according to officina for Constantinopolitan specimens shows that the *folles* seem to have been provided mainly by officina E with eighteen specimens, followed by officina Δ with five specimens. The half-*folles*, on the other hand, shows a bias for officina Δ followed by officina B, while officina E stands behind in third place. The quarter-*folles* exhibit an identical pattern to the *folles*, with seven specimens for officina E and three specimens for officina Δ. On the whole, officina E stands first and provides 44% of the total small-module assemblage of the second series minted in Constantinople, followed by officina Δ with 23%. A similar incidence of coins produced by officina E is noted in the Beirut hoard assemblages. However a distinguished discrepancy is noted for the

31. Bijovsky, *Gold Coin*, 180–181.

32. Gândilă, “Early Byzantine,” 213, fig. 8b.

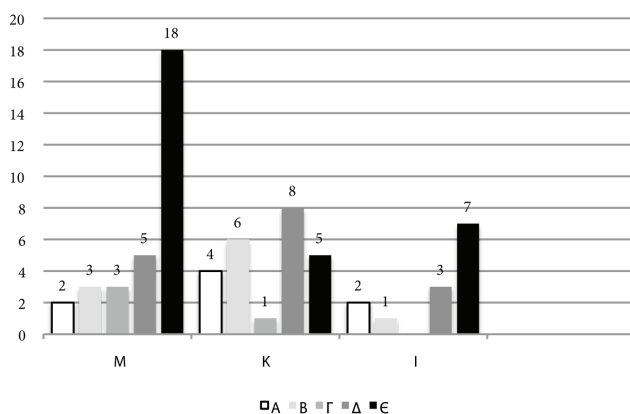


Figure 10. Number of coins found in hoards per denomination/officina (uncertain mints not included).

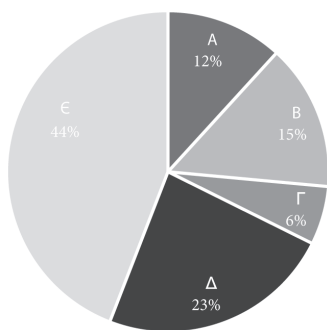


Figure 11. Percentage of officina on single coins found in excavations/date of reform.

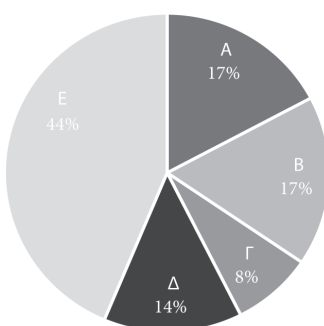


Figure 12. Percentage of officina on coins found in hoards/date of reform.

second most active officina, with A and B standing equally in second position. The Sarafand (Sarepta) Hoard exhibits a similar pattern, with officina E at the forefront with 46%, followed by A and Δ with identical percentages of 18%. The aforementioned observations indicate that officina E was the main provider of Anastasius I's second issue in both Berytus and Sarepta and might probably indicate a provincial pattern of coin supply (Figs. 10–12).

PUNCHMARKS AND RE-VALUATION OF SMALL-MODULE ISSUES³³

Around one twelfth of the total number of the Anastasian small-module issues found in Beirut (including hoards and single finds) are stamped, with 56 punch-marked coins out of 728 (7.8%). The majority of punchmarks are randomly applied to the reverse. A crescent-shaped punchmark most frequently appears in the finds as well as in the Sarafand (Sarepta) Hoard. However, two specimens found in BEY 006 exhibit punchmarks on the obverse.³⁴ The coins of the second issue (507–512 CE) are the most represented with 39 specimens. In terms of denomination the *folles* is the most punchmarked, with 41 specimens, followed by the half-*folles*. In terms of officina, coins bearing officina mark E are the most punchmarked. This high incidence is probably related to the fact that coins of officina E are the most represented in the archaeological record. An analogous pattern is also noted in the Sarafand (Sarepta) Hoard.³⁵ Numerous coins are stamped with two or more punchmarks; however, no correlation is detectable between a specific type of punchmark and denomination, issue date, or officina. A similar profile emerges through the punchmarked coins of the Sarafand (Sarepta) Hoard as well as the coin assemblage in the Palestine region³⁶ (Table 2).

The reason for punchmarking the small-module coinage of Anastasius I remains problematic, and various assumptions have been made. Metcalf highlights the difficulty of finding a valid interpretation and considers with reserve that countermarks were probably used to restore legal-tender value to the small-module coinage after they were demonetized.³⁷ Hahn and Metlich consider punchmarks as evidence of re-valuation of small-module issues.³⁸ These assumptions seem unlikely, however, as argued by Bijovsky, since not all the recorded small-module coins were punchmarked in Palestine, a fact furthermore established through the coin assemblage of Beirut. Pottier offers an alternative interpretation, which is based on the principle that the introduction of the second monetary reform implies the exchange of small-module *folles* against the newly introduced large-module *folles*. However, the exchange operation and the

33 Seventeen punchmarks have been recorded by Abou Diwan, "Un trésor monétaire," 373 based on single coin finds of eleven excavations in addition to the following hoards: BEY 004, BEY 002, and BEY 011.

34. Butcher, "Small Change," 284, nos. 17, 23.

35. Abou Diwan, *Sarepta V*, 121.

36. Abou Diwan, *Sarepta V*, 121; Bijovsky, *Gold Coin*, 196.

37. Metcalf, *Origins*, 91–93.

38. *MIBE*, 30.

injection of sufficient large-module issues is likely to have taken some time given the size of the empire and the required time for manufacturing and distribution. The introduction of punchmarks was entrusted, according to Pottier, to bankers and officials and took place during a provisional period for the purpose of validating the small-module *folles* at half their nominal value as half-*folles* and avoiding a circuit of purchase of small-module *folles* at the rate of half-*folles*, followed by an exchange at the rate of 1:1. The process of punchmarking was no longer required once enough large-module issues were available in circulation. This suggestion offers a valid interpretation for the circulation of small-module coinage without punchmarks after 512 CE.³⁹ The solution suggested by Pottier was recently adopted by Bijovsky and seems to match the monetary profile in Palaestina Prima and Secunda.⁴⁰ According to the author, the small-module issues remained in use simultaneously with large-module coinage at half their nominal value. This is evidenced by the scarcity of large-module fractions on sites.⁴¹ However, the composition of the Anastasian coin assemblage of Beirut does not seem compatible with the latter assumption given the low percentage of large-module issues, which form less than 1% of the coinage in circulation after 512 CE, as can be seen through the hoards. Moreover, the large-module coinage of Anastasius I recorded in Beirut is mainly made of fractions of the *folles*, namely eighth-*folles*, unlike in the provinces of Palaestina Prima and Secunda where *folles* predominate. On the other hand, the percentage of punchmarked coins seems greater in Palestine compared to Berytus (20.7% to 7.8%). As a result, we can tentatively assume that the practice of punchmarking did not take place in Berytus, and most of the punchmarked small-module specimens found in the archaeological record of numerous sites in Beirut were the result of trade patterns probably with Palestine. On the other hand, the overwhelming predominance of small-module issues in Berytus raises a legitimate question as to whether the re-valuation of Anastasius' small-module coins at half their nominal values, which seems to have been effective in other provinces, was likely to have been implemented in Berytus. If this was the case, then large-module *folles* should be expected to figure in more substantial quantities. In any event, two possibilities can be considered: either the use of small-module issues was












39. H. Pottier, *Analyse d'un trésor de monnaies en bronze enfoui au VI^e siècle en Syrie Byzantine: contribution à la méthodologie numismatique*, Cercle d'études numismatiques 10 (Bruxelles: Cercle d'études numismatiques, 1983), 229.

40. Bijovsky, *Gold Coin*, 193.

41. The revaluation of small-module issues has been argued by Metcalf, *Origins*, 101; Grierson, "Monetary Reforms," 286; *MIBE*, 30.

predicated on the value of their copper content in relation to gold, or the face value of small-module issues was maintained at least up to middle of the sixth century within a closed monetary environment restricted to Berytus or to the province of Phoenice Maritima.⁴²

Table 2. Distribution of punchmarks according to denominations and officina.

												Total
M	4	1		2	1		1	1	2			12
M/A	3											3
M/B	2			1								3
M/B	1											1
M/Γ	1											1
M/Δ				1								1
M/A										1		1
M/Δ	1											1
M/?											1	1
?M*/?	1		1						1			3
*M/E	5	1	1		2	1		1	1			12
*M/C/E						1						1
*M†/E	1											1
K	3			2					1	1		7
K/ A				1								1
K/ B								1	1			2
K/ Δ	2											2
K/ ?	1											1
K (NICOM)	1											1
l (uncertain)					1							1
Total	26	2	2	7	4	2	1	3	6	2	1	56

42. Abou Diwan, “Un trésor monétaire,” 315–317. According to Gândilă the state tried to move to a fiduciary agreement where the face value inscribed (M, K, etc.) was used to value the coin irrespective of size and weight: personal communication.

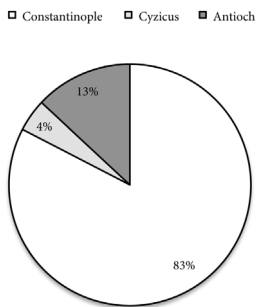


Figure 13. Percentage of coins/mint.

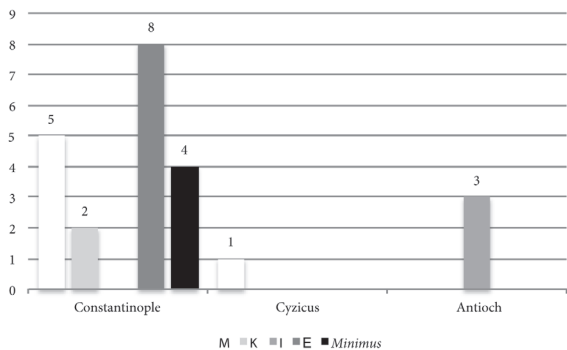


Figure 14. Number of coins per denomination/mint.

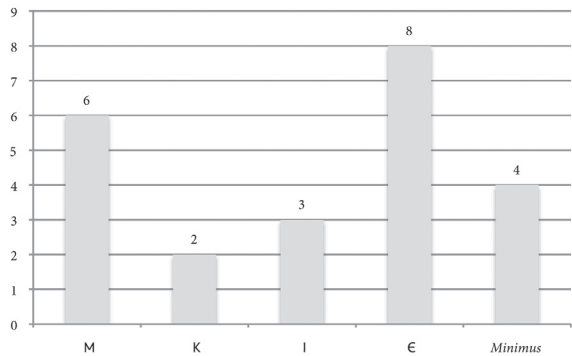


Figure 15. Number of coins per denomination.

JUSTIN I (518–527 CE)

The metrological and typological standards of the base-metal coinage established by Anastasius I remained in effect under Justin I. During this reign a significant decline in the number of single coins in circulation (down to 23 specimens) is noted, as well as in the number of archaeological excavations (11 sites) in which these coins were found.⁴³ It is highly likely that the main form of currency in circulation under Justin I remained the small-module coinage of Anastasius I.⁴⁴ Coins of Justin I are poorly represented in hoards found in Beirut: two *folles* in BEY 002 and six *folles* in BEY 011. The scarcity of the coins during this period indicates the absence of official consignments of coins to Berytus. The recorded coins might have reached the markets by means of regular trade. The scarcity of Justin I coins is also noted in the vicinity of Beirut with a single *follis* found in the locality of Awzai.⁴⁵ Another half-*follis* is recorded in the area of Al-Ghineh towards the northeast.⁴⁶ The coins of Justin I are moreover absent at Sarafand (Sarepta). This profile seems to extend over substantial parts of the province of Phoenice Maritima, indicating the existence of a provincial monetary pattern that contrasts with the profile recorded by Bijovsky in the provinces of Palaestina Prima and Secunda. There the author notes a substantial increase in coins, namely *folles*, under Justin I.⁴⁷ Five out of eight denominations are attested in Beirut during this period, with the eighth-*follis* at the forefront, followed by the *follis*. Constantinople remains the main supplier of currency, responsible for 83% of the coins and providing the widest range of denominations (*follis*, half-*follis*, eighth-*follis*, and *minimus*), followed by Antioch with 13%. A similar pattern of supply is noted by Bijovsky in Palestine, with Constantinople at the forefront with 66%, followed by Antioch (13%), though with a wider variety of recorded mints such as Alexandria, Nicomedia, Cyzicus (Figs. 13–15).⁴⁸

43. BEY 002, BEY 006, BEY 125, BEY 142, BEY 184, JEM 002, JEM 004, MDWR 2, RML 2385, SFI 071, SFI 1056.

44. Butcher, "Small Change," 106, reaches a similar conclusion.

45. M. Chéhab, *Mosaïques du Liban*, vol 1., Bulletin du Musée de Beyrouth 15 (Paris: Librairie d'Amérique et d'Orient, 1959), 132.

46. Chéhab, *Mosaïques*, 162.

47. Bijovsky, *Gold Coin*, 198–199.

48. Bijovsky, *Gold Coin*, 199. The influx of Justin I coins in Palestine and Jordan was previously noted by Grierson, "Monetary Reforms," 296; A. Walmsley, "Coin Frequencies in Sixth and Seventh Century Palestine and Arabia: Social and Economic Implications," *Journal of the Economic and Social History of the Orient* 42, 3 (1999): 343–344 and graph 3 observes peaks in coin supply for Justin I and Justin II in Pella and Gerasa; Butcher, "Small Change," 104, fig. 76; Gândilă, "Early Byzantine," 168.

JUSTINIAN I (527–565 CE)

During the first decade of his reign, Justinian I maintained the same numismatic standards established by Anastasius I in his second monetary reform of 512 CE. The emperor undertook a major reform in 538/9 CE, raising the *folles* weight standard to around 13.5 to the pound, introducing a facing imperial bust on the obverse of large denominations, and dating by regnal years on the reverse. Two other modifications in the weight standard occurred in later years: in 542 (15 to the pound) and 550 CE (18 to the pound).⁴⁹ To date, the archaeological record in Beirut has yielded 237 coins attributed to this reign distributed over 23 sites.⁵⁰

Pre-reform (527–538 CE)

The monetary profile of Beirut during this reign exhibits a significant bias towards the post-reform (538–565 CE) coinage.⁵¹ The relatively low proportion of pre-reform specimens recorded in Beirut (25%) is probably related to the fact that Anastasius I's small-module issues remained the main medium of exchange during this period (Figs. 16–17). The *folles* is the most represented denomination between 527 and 538 CE with nine specimens. A similar pattern is recorded in the archaeological record and in hoards from Palaestina Prima and Secunda.⁵² Undated half-*folles* have not yet been attested in Beirut. A single undated quarter-*folles* minted in Constantinople is registered, three eighth-*folles* minted in Constantinople and Carthage, and 65 *nummi* produced by Carthage. Constantinople remains the main provider of *folles*, quarter-*folles*, and eighth-*folles*, whereas Carthage stands as the main supplier of *nummi* (Figs. 18–19). Berytus exhibits a distinctive pattern in relation to numerous Near Eastern sites where pre-reform coinage (527–538 CE) is prevalent.⁵³ Gândilă has also noticed a rise in the volume of pre-reform coinage in major museum collections as well as in the coin finds of numerous sites in the Near Eastern provinces. He suggests

49. *MIBE*, 15–17; M. F. Hendy, *Studies in the Byzantine Monetary Economy: c. 300–1450* (Cambridge: Cambridge University Press, 1985), 496.

50. BEY 004, BEY 006, BEY 020, BEY 026, BEY 045, BEY 070, BEY 071, BEY 125, BEY 166, BEY 184, BEY 197, BEY 198, BEY 201, BEY 204, JEM 002, JEM 003, JEM 004, MDWR 2, MINA 1375, RML 2385, Sacré-Coeur Gemmayzé, SFI 1056, SFI 1075.

51. This pattern has been previously noted by Butcher, “Small Change,” 108, followed by Sawaya, *Monnaie*, 88.

52. Bijovsky, *Gold Coin*, 216–217.

53. P. J. Casey, “Justinian, the ‘Limitanei,’ and Arab-Byzantine Relations in the 6th c.,” *Journal of Roman Archaeology* 9 (1996): 217, table 1, *sqq*; Gândilă, “Early Byzantine,” 168.

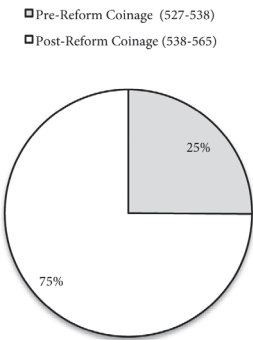


Figure 16. Percentage of coins/
pre- and post-reform coinage.

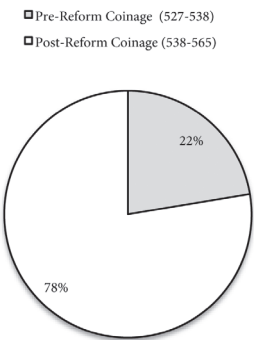


Figure 17. Percentage of *nummia*/
pre- and post-reform coinage.

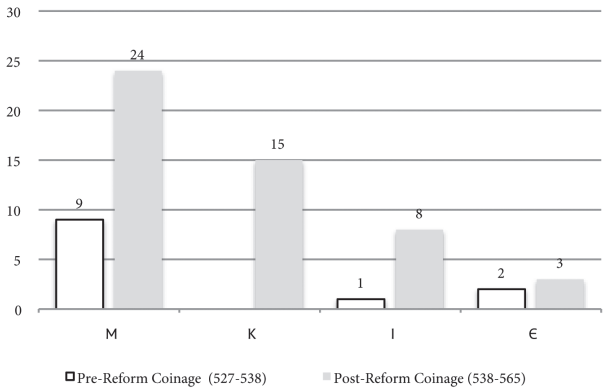


Figure 18. Number of coins per denomination/date of reform (excluding *nummus*).

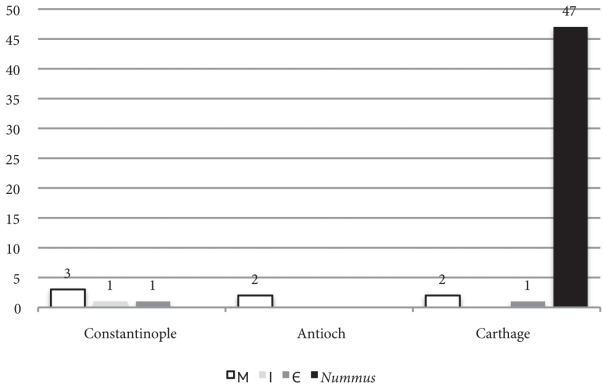


Figure 19. Number of coins per denomination/mint (527-538)
(Uncertain mints are not included).

that this rise may be related to the output of the mint of Antioch.⁵⁴ The coin finds of Palaestina Prima and Secunda confirm this regional pattern. Here, the high numbers of undated pre-reform coins of Justinian I are related to the stability and prosperity that characterized this decade, as Bijovsky has pointed out.⁵⁵ This increase of the pattern of supply reflects an upsurge in the volume of monetary production, which Pottier relates to the expansion of the Byzantine Empire and a vast program of civic and military construction during this period.⁵⁶

Post-reform (538–565 CE)

Twenty-four *folles* are recorded in the archaeological record of Beirut during this period with a 166.6% increase in finds compared to the undated issues. These *folles* were provided by a variety of mints, with Constantinople at the forefront followed by Nicomedia and Antioch (Fig. 20). Specimens of ten annual issues figure during this period, reflecting an intermittent pattern of supply for this denomination (Fig. 21). Figure 22 shows the breakdown of coins by denomination according to weight groups. Eight *folles* are registered for the first group (538–542 CE). A significant decrease in supply is noted in the second group (542–550 CE) consisting of three specimens, followed by an increase to ten *folles* for the third group (550–565 CE). However, the absence of *folles* during the last years of Justinian I's reign, as indicated by the latest recorded *folles* of the year 558/9 in Beirut, seems coherent with Hahn and Metlich's statement regarding a decrease in the production of *folles* during the last years of Justinian. A similar pattern has been noticed by Bijovsky in Palestine.⁵⁷

The supply of half-*folles*, which seems to have been absent before 538 CE, resumes with 15 specimens produced by Constantinople and Antioch, followed by Nicomedia (Fig. 20). Coins of this denomination are spread over eight different annual issues ranging in date between 538/9 and 557/8 CE (Fig. 21). The distribution of half-*folles* by chronological weight group shows a slight rise between the first two groups followed by noticeable increase in the last group (Fig. 22). The quarter-*folles* were mainly provided by Antioch, followed by Constantinople (Fig. 20), exhibiting the least frequent pattern of supply with eight recorded specimens and five annual issues between 543/4 and 564/5 CE (Fig. 21). The distribution according to weight group shows no coins for the first group, a single specimen for the second group, followed by obvious growth

54. Gândilă, "Early Byzantine," 169.

55. Bijovsky, *Gold Coin*, 216–217.

56. Pottier, *Analyse*, 239.

57. Bijovsky, *Gold Coin*, 223, 259.

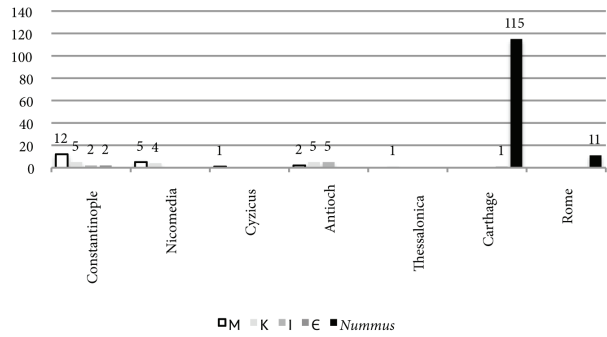


Figure 20. Number of coins per denomination/mint (538-565).

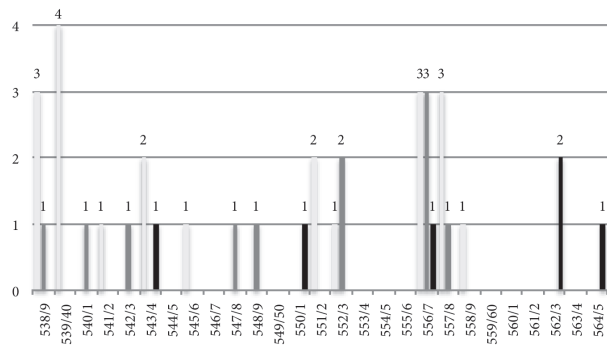


Figure 21. Number of coins per denomination/annual issues (only the coins with legible dates were counted).

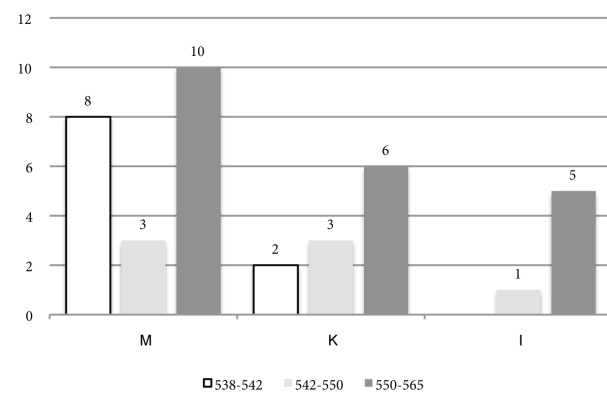


Figure 22. Number of coins/weight groups (only the coins with legible dates were counted).

with five specimens during the last decade of Justinian I's reign. This result seems support Gândilă's observation regarding high numbers of quarter-*folles* in the second half of the 550s. He explains this rise by a demand for small denominations after two decades of intensive circulation of the *folles* (Fig. 22).⁵⁸

The *minimi* coinage produced under Justinian I is found in substantial numbers—170 specimens in Beirut's archaeological excavations. Of these issues, 95% were produced in Carthage involving seven types (162 specimens).

The wide diffusion of Carthaginian issues outside Africa following the Byzantine reconquest has been highlighted by Morrisson in various regions, namely Sicily and Merovingian Gaul, as well as in the Eastern Mediterranean.⁵⁹ Coins of Carthage form 43% of the Western currency found in the Balkans and Asia Minor according to Gândilă. African *minimi* are attested in Greece as well as in major urban centers of Asia Minor such as Sardis and Ephesus. He ascribes this wide circulation of Carthaginian coins to military and economic factors.⁶⁰ The attribution of Carthaginian issues is based on their significant clustering in the excavation of Carthage, given the absence of mintmarks. The dating of these *nummi* types does not have unanimous support and various chronological periods have been suggested, most of which fall within the reign of Justinian I, as shown in Table 3.

The most frequently encountered *nummus* type in Beirut depicts a draped and cuirassed profile bust right flanked by crosses and the letter A on the reverse. In Palestine the A *nummus* type is predominant with 114 specimens noted by Bijovsky. She argues that the relatively high number of specimens found in excavation and hoards advocate for a long period of production.⁶¹ The pattern in Beirut offers good evidence to back up this statement. This type also has a significant presence in the Balkans and Asia Minor, forming more than 50% of the recorded African issues. Gândilă argues that these issues reflect "the returning home of soldiers who participated in the North African blitzkrieg led by Belisarius."⁶²

The second most prolific *nummus* type represents a nimbate bust facing, flanked by crosses on the obverse and a skewed A surrounded by three stars on the reverse. This type holds the third position among the most recorded *nummi*,

58. Gândilă, "Early Byzantine," 171.

59. C. Morrisson, "L'Atelier de Carthage et la diffusion de la monnaie frappée dans l'Afrique Vandale et Byzantine (439–695)," *Antiquité Tardive* 11 (2003): 81, carte 5.

60. A. Gândilă, "Going East: Western Money in the Early Byzantine Balkans, Asia Minor and the Circumpontic Region (6th–7th c.)," *Rivista Italiana di Numismatica* 117 (2016): 136–38.

61. Bijovsky, *Gold Coin*, 234.

62. Gândilă, "Going East," 137–138.

with 49 specimens in Palestine.⁶³ The dating of this issue remains problematic, though, since Hahn and Metlich attribute this type to the reign of Justin II. In any event, it may be conjectured that this *nummus* type might have supplied the market of Berytus towards the end of Justinian I's reign when the city started to gradually recover from the devastating effects of the earthquake of 551 CE.

The third most represented type, at 25 specimens, depicts a facing bust right flanked by crosses on the obverse and a cross between two points. Hahn's attribution of this type to the reign of Maurice has been discarded by most scholars, given the lack of reliability of the evidence in favor of this dating.⁶⁴ A production date towards the end of Justinian I's reign and the beginning of the reign of Justin II seems more likely. The archaeological record in Palestine yielded 23 specimens of this type, representing the fourth most frequently attested *nummus* type in that region.⁶⁵

The six-pointed star type featuring a facing bust flanked by crosses on the obverse is the fourth most frequently encountered type in Beirut, with 19 coins. Most scholars set the production date of this type during the last 15 years of Justinian I's reign. In contrast, this type seems very scarce in Palestine, with only two recorded specimens.⁶⁶

The VOT/XIII type depicting a profile bust right on the obverse does not pose any dating problem given the presence of regnal years on the reverse. This type, which was produced in 539/40 CE, stands sixth with 18 specimens. A similar number of specimens is recorded in Palestine, where it stands as the sixth most frequently represented *nummus* type.⁶⁷

The staurogram *nummus* type with the letters A and Ω and depicting a facing bust flanked by crosses is represented by 14 specimens. The dating of this type remains problematic, as indicated by the two different chronological ranges given in Table 3. The coin assemblage in Beirut does not allow us to confirm any dating.

At ten specimens, the last and least recorded *nummus* type in Beirut depicts a profile bust on the obverse and a christogram on the reverse. This type is, however, more extensively recorded in Palestine, where it stands in second position with 57 coins. To date, two different chronological ranges have been suggested, as indicated in Table 3.

63. Bijovsky, *Gold Coin*, 243.

64. Bijovsky, "From Carthage," 167.

65. Bijovsky, *Gold Coin*, 244–246.

66. Bijovsky, *Gold Coin*, 244.

67. Bijovsky, *Gold Coin*, 238–239.

Table 3. Carthaginian *nummi* of Justinian I found in Beirut.

Type	Number of coins	Dating
Rev.: A on the reverse. Ref.: MIBE, 192–193.	47	533/534–539 ^a 534–537 ^b 537–538 ^c
Rev.: Skewed A surrounded by three stars. Ref.: MIBE, 213.	29	548–565 ^d 552–565 ^e 565–578 ^f
Rev.: Cross between two points. Ref.: MIBE, 133.	25	552–565 ^g Early reign of Justin II ^h 592–597 ⁱ
Rev.: Six-pointed stars. Ref.: MIBE, 211.	19	551–565 ^j
Rev.: VOT/XIII. Ref.: MIBE, 205.	18	539/540 ^k
Rev.: ΑΡΩ. Ref.: MIBE, 208.	14	537–565 ^l 552–565 ^m 542–552 ⁿ
Rev.: ☩. Ref.: MIBE, 206.	10	548–565 ^o 538–539 ^p 534–537 ^q 538–542 ^r 541–543 ^s c. 538–542 ^t

a DOC 1, 170, no. 309 (1–3); MIBE, nos. 192–193.

b Morrisson, “Coin Finds,” 425, no. 3.

c Pottier, *Analyse*, 218.

d DOC 1, 170, no. 310.

e Pottier, *Analyse*, 220.

f MIB I, no. 213; MIBEC, no. 213.

g Bijovsky, *Gold Coin*, 244–245.

h Pottier, *Analyse*, 220.

i MIB 2, no. 133; MIBEC, no. 133.

j MIBE, no. 211 (Ravenna); Pottier, *Analyse*, 221.

k DOC 1, 167, no. 302 (1–2); MIBE, no. 205.

l DOC 1, 193, no. 374.

m MIBE, no. 208.

n Pottier, *Analyse*, 219.

o DOC 1, 170, no. 311.

p Pottier, *Analyse*, 205, 218 and table 29.

q Morrisson, “Coin Finds,” 425, no. 5.

r MIBE, no. 206.

s Buttrey and Hitchner, “The Coins,” 151, no. 315.

t Bijovsky, *Gold Coin*, 237.

The Italian *nummi* are less frequently found in Beirut, with two types produced in Rome as seen in Table 4. The limited numbers of recorded specimens do not indicate the existence of official consignments.

Table 4. Italian *nummi* of Justinian I found in Beirut.

Type	Number of coins	Dating
Rev.: $\Omega + \Lambda$ MIB 210	9	552–565
Rev.: $\ast + \ast$ MIB 231	3	537–539

The majority of research related to the coinage of Justinian I has unanimously highlighted the paucity of dated Justinianic *folles* in the Near East compared to the undated pre-reform coinage, and various hypotheses have been offered in order to interpret this phenomenon.⁶⁸ The overall pattern of supply in Beirut indicates a surge in the volume of the coins—expressed in *nummia*—produced during the years 538/9 and 539/40 CE, which seem to form 27% of the whole recorded quantity of *nummia* from Justinian I between 538 and 565 CE (Fig. 23). This rise might be related to an attempt to renew the bulk of the monetary mass in circulation since Anastasius I. Gândilă notices in this regard a dramatic increase in coin production after the reform, particularly in 539/40 CE, followed by a reduction in coin output in 541/2.⁶⁹ The volume of specimens produced between 540/1 and 550/1 CE is relatively low compared to the first two years following the reform, as shown in Figure 23. However, the specimens produced during this period indicate a nearly constant supply, with eight of eleven annual issues. The shortage of coins is also noted by Bijovsky in *Palaestina Prima* and *Secunda*. The author follows the hypothesis put forward by Pottier and Morrisson by establishing a link between the low incidences of coins during this period and the outbreak of the bubonic plague in 542 CE.⁷⁰ The monetary profile in Beirut confirms the circulation of Justinianic dated *folles* and brings further sup-

68. Pottier, *Analyse*, 55; C. Morrisson, “La monnaie en Syrie Byzantine,” in *Archéologie et histoire de la Syrie II. La Syrie de l’époque achéménide à l’avènement de l’Islam*, ed. J.-M. Dentzer and W. Orthmann (Saarbrücken: Saarbrücker Druckerei und Verlag, 1989), 192; Casey, “Justinian,” 220; and Noeske 2000, 152–53. For a critical review of the various assumptions, see Gândilă, “Early Byzantine,” 174–75; A. Gândilă, “Heavy Money, Weightier Problems: The Justinianic Reform of 538 and Its Economic Consequences,” *Revue Numismatique* 169 (2012): 366–68; Bijovsky, *Gold Coin*, 247–56.

69. Gândilă, “Early Byzantine,” 170, fig. 2a; Gândilă, “Heavy Money,” 374–75. The author highlights the correlation between major museum collections and single finds which seem to point out to the same results.

70. Bijovsky, *Gold Coin*, 223; Pottier, *Analyse*, 55, 241; and Morrisson, “La monnaie,” 92.

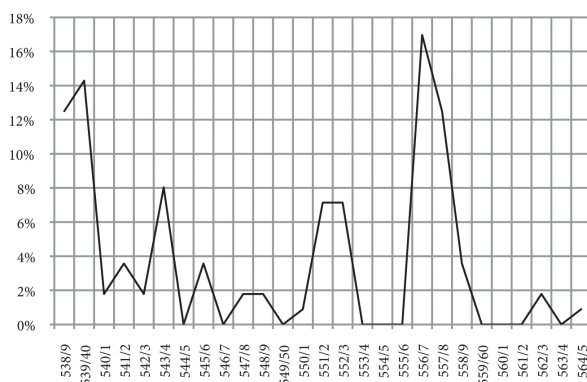


Figure 23. Pattern of annual issues/percentage of *nummia* (*folles*, half-*folles*, and quarter-*folles* counted).

port to the statement set forth by Gândilă and followed by Bijovsky, where both authors argue for a larger number of Justinianic heavy issues in circulation than has been implied in earlier studies.⁷¹ It should be noted in this connection that the results which emerge from the study conducted by Callegher do not correspond to the recorded pattern in Beirut. The author contends that the coin finds of Justinian I minted between 538–542 CE seem rare in relation to the overall number of coins minted after this date.⁷²

What is puzzling on the other hand is the absence of heavy dated issues in hoards found in Beirut: the BEY 011 hoard contains six undated Justinianic *folles* with a closure date in 538 and a burial date in 551 CE. BEY 004 contains a single post-reform quarter-*folles* with a closure date between 542–547 and a burial date in 551 CE. The archaeological context in which the latter hoard was found indicates its nature as a purse or circulation hoard reflecting the currency in use during the mid-sixth century CE.⁷³ The data provided by these hoards does not

71. Gândilă, “Early Byzantine,” 176; Gândilă, “Heavy Money,” 382; Bijovsky, *Gold Coin*, 250–51. *Contra* D. M. Metcalf, “The Metrology of Justinian’s *Follis*,” *Numismatic Chronicle* 20 (1960): 209–18.

72. B. Callegher, “La riforma della moneta di rame del 538 (Giustiniano I) e il ruolo della c.d. legge di Gresham,” in *I Ritrovamenti Monetari e la Legge di Gresham. Atti del III Congresso Internazionale di Numismatica e di Storia Monetaria, Padova, 28–29 ottobre 2005*, ed. Michele Asolati and Giovanni Gorini (Padova: Esedra, 2006), 134–38. For a critical review of this assumption see Gândilă, “Heavy Money,” 378.

73. The hoard was found in a “Late Roman Amphora 1”. The context (no. 7903, room no. 146; square no. IV G) in which the hoard was found includes a mixture of building debris, as well as a crushed material found in situ on the floor of the room. The material is essentially

support Callegher's suggestion that, following Gresham's Law, the heavy issues produced between 538 and 542 were preferentially used for hoarding.⁷⁴ Hahn states in this regard that heavy *folles* of group 1 (538–542 CE) are rarely found in hoards.⁷⁵ The presence of Justinianic pre-reform coins and the absence of post-reform heavy issues in these hoards indicate, despite the bias in numbers in favor of the latter coinage, that the process of hoarding base-metal currency in Berytus under Justinian I was not related to the availability of the heavy-weight dated issues in the markets but to the high level of credibility and confidence which remained the privilege of the Anastasian small-module issues.

The earthquake that struck Berytus on July 9, 551 CE, caused substantial damage to buildings and infrastructure. Archaeological evidence at numerous sites reflects the extent of the destruction.⁷⁶ Historical accounts highlight the cataclysmic dimension of the event. Agathias' description of the destruction of the city implies that the rebuilding process was not immediate and that Berytus was not able to restore its former reputation. The law school was transferred to Sidon and remained there until the reconstruction works were finished.⁷⁷ Pseudo-Dionysius and Malalas report that the emperor Justinian I sent financial support in order to assist in restoring part of the devastated city.⁷⁸ Hall, based on Antoninus of Piacenza's account, suggests that the city may have been able to return to previous state.⁷⁹ On the monetary level, 22 specimens produced

made of Phocian and Cypriot red slip ware as well as several vessels of Late Roman Amphora 1 type, a series of oil lamps, and human skeletal remains: see M. Saghih Beidoun et al., "The Monumental Street 'Cardo Maximus' and the Replanning of Roman Berytus," *Bulletin d'Archéologie et d'Architecture Libanaises* 3 (1998–99): 120–24.

74. Bijovsky, *Gold Coin*, 221; Callegher, "La riforma," 143–144.

75. *MIBE*, 52. However, on page 17 the author highlights the attractiveness of the large heavy specimens for hoarding.

76. M. Saghih Beidoun, "Evidence of the Earthquake in the Current Excavation of Beirut City Center," *National Museum News* 5 (1997): 15–18.

77. Agathias of Myrina, *Agathiae Myrinaei Historiarum Libri Quinque*, ed. R. Keydell (Berlin: De Gruyter, 1967), 2.15.1–4.

78. Pseudo-Dionysius [of Tell-Mahrè], *Chronicon Anonymum Incertiauctoris Pseudo-Dionysianum vulgo dictum*, ed. J. B. Chabot, *Corpus Scriptorum Christianorum Orientalium, Scriptores Syri* 3 (Paris: E Typographeo Reipublicae, 1927–33), 133; John Malalas, *Chronographia*, ed. L. Dindorf (Bonn: CSHB, 1831), 485. See J. P. Brown, *The Lebanon and Phoenicia: Ancient Texts Illustrating Their Physical Geography and Native Industries*, American University of Beirut Centennial publications (Beirut: American University of Beirut, 1969), 126–37; and L. J. Hall, *Roman Berytus: Beirut in Late Antiquity* (London: Routledge, 2004), 68–75 for a commentary on the various sources mentioning the earthquake.

79. Hall (L. J. Hall, *Roman Berytus: Beirut in Late Antiquity* [London: Routledge, 2004], 73) and Kennedy (H. Kennedy, "The Last Century of Byzantine Syria: A Reinterpretation,"

between 551 and 565 CE are recorded in 11 different archaeological sites.⁸⁰ The absence of coins from the years 553/4, 554/5, and 555/6 CE reflects a temporary interruption of the monetary influx presumably related to the devastating effects of the earthquake.⁸¹ However, the volume of specimens—expressed in *nummia*—of years 556/7 and 557/8 CE reflects a substantial rise in the influx of currency. Nearly 30% of the total quantity of *nummia* for Justinian I seems to have been introduced around a decade after the cataclysm (Fig. 23). This increase is connected to the rebuilding process and seems consistent with Agathias's narrative regarding a delayed recovery of the city. Archaeological evidence from large sites (BEY 004 and BEY 006) points to a quick recovery from the earthquake.⁸²

JUSTIN II (565–578 CE)

Justin II introduced a major typological modification on the obverse of larger copper denominations involving the use of an enthroned imperial couple type. Metrologically, two modifications in the weight of the *follis* took place under this reign: a first reduction in 565/6 CE (from 18 to 21 to the pound) and a second weight reduction in 569/70 (24 to the pound).⁸³ As a result, two parallel weight standards are mostly visible in issues of the mint of Constantinople until the end of his reign. Hahn and Metlich argue that a portion of the heavy-weight coins produced at Constantinople may have been sent to the troops stationed in Syria.⁸⁴

Fifty-six specimens in the name of Justin II were retrieved from 14 excavations conducted in Beirut.⁸⁵ The coin assemblage of Justin II exhibits a bias for the *moneta publica* of Constantinople (31%), followed by Nicomedia (22%), and Thessalonica (20%). A similar pattern is noted by Bijovsky for the first two

Byzantinische Forschungen 10 [1985]: 168–69) suggest on the other hand that the prosperity of the coastal cities of Phoenice Maritima was decreased by the end of the sixth century ce.

80. BEY 020, BEY 004, JEM 002, BEY 020, JEM 004, RML 2385, BEY 006, SFI 1056, BEY 197, MDWR 2, BEY 006.

81. No specimens are attested for the year 553/4 CE. Hahn (*MIBE*, 223) has drawn attention to this fact, which also seems confirmed by Bijovsky, *Gold Coin*, 223.

82. M. Saghih, “Bey 004, Zone des Eglises,” *Bulletin d'Archéologie et d'Architecture Libanaises* 1 (1996): 46; D. Perring et al., “Bey 006, 1994–1995, the Souks Area Interim Report of the AUB Project,” *Bulletin d'Archéologie et d'Architecture Libanaises* 1 (1996): 197–98.

83. Metcalf, “Metrology,” 212; *MIBEC*: 9–10.

84. *MIBEC*, 9–10, 28. Metcalf, “Metrology,” was one the first scholars to identify the existence of two different weight standards under Justin II.

85. BEY 002, BEY 004, BEY 006, BEY 045, BEY 166, BEY 184, BEY 197, BEY 204, JEM 002, JEM 004, MDWR 2, RML 2385, SFI 001, and SFI 1056.

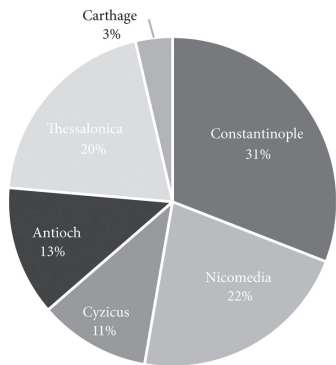


Figure 24. Percentage of coins/mint.

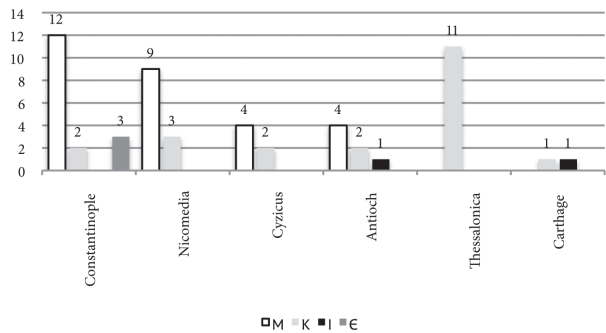


Figure 25. Number of coins per denomination/mint.

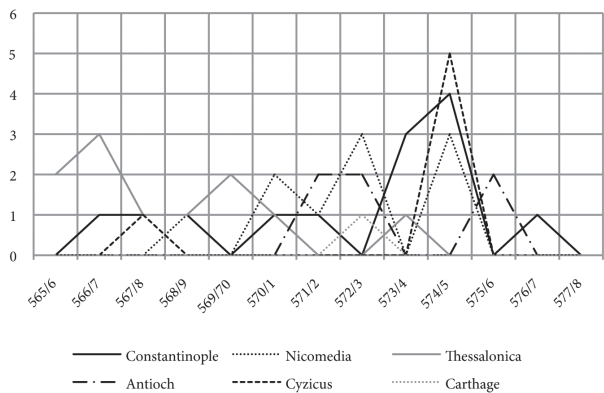


Figure 26. Pattern of annual issues/number of coins per mint.

mints.⁸⁶ While Antioch stands third in Palestine with 11%, it held the fourth position in Beirut with 13% (Fig. 24). Sarafand (Sarepta) displays a different pattern, with the mint of Nicomedia as the main supplier of currency, followed by Constantinople. However, this partiality might be related to the scarce number of coins retrieved from the archaeological record.⁸⁷ Constantinople and Nicomedia are the main providers of *folles* and Thessalonica stands as the chief supplier of half-*folles* (Fig. 25). An identical pattern is noticeable in the Palestine region.⁸⁸ Gândilă, on the other hand, notes a substantial increase in the output of the mint of Thessalonica, namely half-*folles*, under Justin II until 570, as is evident from major museum collections.⁸⁹

All the Constantinopolitan *folles* found in Beirut belong to Justin II's light-weight group. A similar pattern is noted in Sarafand (Sarepta).⁹⁰ The impact of the mint of Antioch is perceptible as of 571 CE. No coins of this mint prior to this date are recorded in Beirut (Fig. 26). Gândilă observes an increase in the mint output between 570 and 578 related to the conflict with Persia.⁹¹ However, the absence of coins minted between 573/4 and 574/5 CE might be associated with the Persian counter-strike in 573 CE. During this event the Persians took control of Antioch, which most of the population had deserted.⁹² In terms of denominations, the *folles* is the most represented, followed by the half-*folles*. The low incidence of eighth-*folles* (three coins) under Justin II is related to the fact that production of this denomination was discontinued at the major supplying mints of Constantinople, Nicomedia, and Cyzicus.⁹³ The recorded specimens were minted in Carthage and Antioch.

The monetary profile in Berytus under Justin II shows a constant supply of coins reaching the markets. A significant increase is observable in the volume of coins—expressed in *nummia*—minted in 570/1 CE and a peak in the volume of the specimens produced in 574/5 CE, accounting for 29% of the total number of *nummia* for Justin II (Fig. 27). Gândilă notes a similar peak in museum collections in 574/5 CE (year 10) and argues that this peak is influenced by the *moneta*

86. Bijovsky, *Gold Coin*, 263.

87. Abou Diwan, *Sarepta V*, 57–58.

88. Bijovsky, *Gold Coin*, 263.

89. Gândilă, "Early Byzantine," 178.

90. Abou Diwan, *Sarepta V*, 109–111.

91. Gândilă, "Early Byzantine," 178.

92. G. Greatrex and S. N. C. Lieu, *The Roman Eastern Frontier and the Persian Wars, AD 226–363: A Narrative Sourcebook* (London: Routledge, 2002), 146. A similar conclusion was reached by Bijovsky, *Gold Coin*, 264.

93. The latter denomination seems scarce in Israel according to Bijovsky, *Gold Coin*, 264.

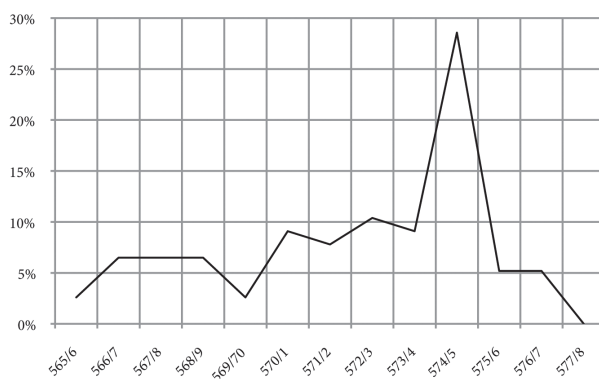


Figure 27. Pattern of annual issues/percentage of *nummia* (*folles*, half-*folles* and quarter-*folles* counted).

militaris imitativa bearing this date.⁹⁴ Grierson already noted the existence of abnormal issues for Justin II dated to regnal year 10 and explained it as the result of some sort of anniversary minting.⁹⁵ These issues are distinguished mainly by the stylistic criteria outlined by Hahn.⁹⁶ The state of preservation of most of the recovered specimens in Beirut does not permit a distinction between official issues and imitations; a single half-*folles* recovered in JEM 002 might be attributed on stylistic grounds to the *moneta militaris imitativa* (MIBEC, no. 93b).⁹⁷ Numerous scholars have observed a substantial surge in the numbers of coins in circulation under Justin II in Near Eastern provinces⁹⁸ and various interpretations have been offered: war with Persia by Metcalf,⁹⁹ withdrawal and replacement of the heavy coins of Justinian according to Gândilă,¹⁰⁰ urban development and economic activity by Walmsley,¹⁰¹ and a change in the monetary policy and distribution by

94. Gândilă, "Early Byzantine," 178–179. See MIBEC, nos. V89b–95b.

95. P. Grierson, *Byzantine Coins*, The Library of Numismatics (London: Methuen; Berkeley and Los Angeles: University of California Press, 1982), 76.

96. MIBEC, 33.

97. Sawaya, *Monnaie*, no. 1483. The author attributes this specimen to the mint of Cyzicus.

98. Namely in the provinces of Palaestina Prima and Secunda as well as Arabia: see Gândilă, "Early Byzantine," 180, and Bijovsky, *Gold Coin*, 267 for the relevant bibliography.

99. D. M. Metcalf, "Some Byzantine and Arab-Byzantine coins from Palestina Prima," *Israel Numismatic Journal* 2, 3/4 (1964): 34.

100. Gândilă, "Early Byzantine," 178.

101. Walmsley, "Coin Frequencies," 345, based on the high incidence of coins of Justin II retrieved from Pella and Gerasa, considers the existence of a substantial economic growth during the early years of the emperor's reign far greater than under Justinian I. The economic investment of the latter emperor in the Holy Land took place during the first decade of his reign and "did not extend beyond the late 530s."

Bijovsky.¹⁰² The coin assemblage of Beirut under Justin II exhibits twice the number of *folles*, half-*folles*, and quarter-*folles* compared to the last 15 years of the reign of Justinian and seems to follow the general trend observed in the region.

TIBERIUS II (578–582 CE)

Tiberius undertook numerous adjustments to the base-metal coinage in 579 CE (the year of the consulate) by introducing a new denomination, the 30-*nummia*. According to Hahn and Metlich, this was intended to replace the earlier *folles* produced at the ratio of 24 to the pound. Typological modifications were implemented on both the obverse and reverse of this coinage. The use of a consular bust was assigned to the obverse of the *folles*. The 30-*nummia* and quarter-*folles* were distinguished by a crowned facing bust and the half-*folles* by a facing bust with globus cruciger and shield. The use of a profile bust remained restricted to the eighth-*folles*. New forms of value mark were also applied on the reverse of most denominations: M (*folles*), XXX (*folles*), XX (half-*folles*), X (quarter-*folles*), and ʎ (eighth-*folles*). Officina marks were relocated in the exergue along with mintmarks on the *folles*, half-*folles*, and quarter-*folles*. However, mints like Constantinople, Nicomedia, and Cyzicus did not apply mintmarks on the quarter-*folles* and eighth-*folles*. The dates indicated on larger denominations were calculated according to the year of Tiberius's elevation to the rank of Caesar in 574 CE.¹⁰³

Forty specimens for Tiberius have been retrieved from 12 sites in Beirut.¹⁰⁴ Constantinople remains the main provider of currency, as in the previous reign, with 56% of the total number of coins found on sites, followed by the mint of Nicomedia with 23% and Antioch with 18%. The absence of the mint of Cyzicus might be related to the fact that no official consignments of coins from this mint were sent to Palaestina as well as Phoenice (Fig. 28).¹⁰⁵ *Folles* followed by half-*folles* remain the most common denominations on site. Only three specimens of 30-*nummi* have been recorded until now. The scarcity of this denomination indicates the absence of any official shipment of this denomination. The retrieved specimens might have reached the markets by means of normal trade. Bijovsky believes that this denomination was not part of the regular currency in Palestine.¹⁰⁶ No quarter-*folles* of Tiberius II are recorded up till now in Beirut.

102. Bijovsky, *Gold Coin*, 267.

103. MIBEC, 40.

104. BEY 002, BEY 004, BEY 006, BEY 166, BEY 184, BEY 197, BEY 200, JEM 002, JEM 004, RML 2385, SFI 071, SFI 645.

105. Bijovsky, *Gold Coin*, 275.

106. Bijovsky, *Gold Coin*, 275.

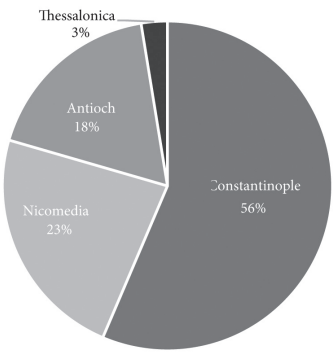


Figure 28. Percentage of coins/mint.

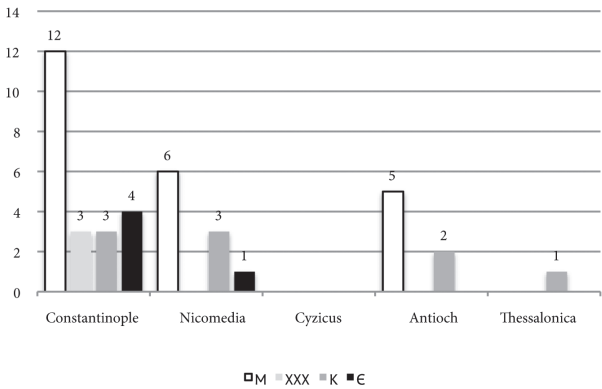


Figure 29. Number of coins per denomination/mint.

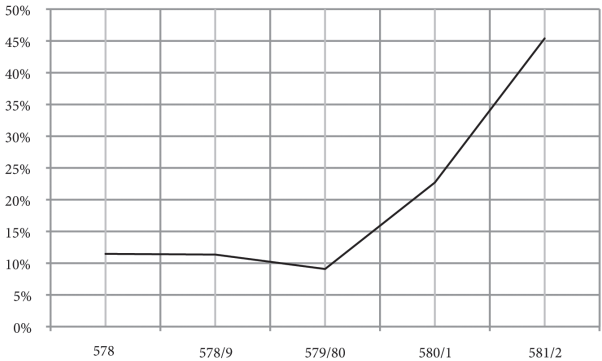


Figure 30. Pattern of annual issues/percentage of *nummia* (folles and half-folles counted).

The mint of Constantinople provided the widest set of denominations: *folles*, 30-*nummi*, half-*folles*, and eighth-*folles*. Thessalonica, which seems to have been the main supplier of half-*folles* under Justin II, provided a single specimen (Fig. 29). Coins of Tiberius II were also found in the Sarafand (Sarepta) hoard.¹⁰⁷ The specimens produced between 578 and 581/2 CE are all recorded in Beirut, suggesting a regular supply of coins. A significant rise in the volume of coins—expressed in *nummia*—is noted during the last years of Tiberius's reign, with a peak for the coins produced in 581/2 CE (Fig. 30). The relatively high numbers of coins, considering the short duration of this reign, seem consistent with Gândilă's remarks regarding an intense circulation of coins during this period along sea routes.¹⁰⁸

MAURICE (582–602 CE)

The copper coinage of Maurice reflects a nostalgic imperial ideology looking back to the Justinianic era. It restores the helmeted facing bust on the obverse and the Greek numeric value on the reverse.¹⁰⁹ Two hundred and three coins for Maurice were retrieved from 26 archaeological excavations.¹¹⁰ A significant change in the pattern of coin supply took place under Maurice, with Antioch standing as the most prolific provider of currency in terms of coin numbers, followed by Constantinople and Nicomedia (Fig. 31).¹¹¹ A similar distribution is observed in Sarafand (Sarepta) as well as Palestine.¹¹² The predominance of Antioch is also noted in hoards. The Sarafand (Sarepta) Hoard exhibits a clear bias for Antiochene issues under Maurice, which account for 73% of the contents.¹¹³

107. Abou Diwan, *Sarepta V*, 129–132.

108. Gândilă, "Early Byzantine," 182.

109. Hahn and Metlich (*MIBEC*, 53–5) present a comprehensive overview of the various modifications in each of the imperial mints.

110. BEY 002, BEY 004, BEY 006, BEY 045, BEY 070, BEY 111, BEY 113, BEY 154, BEY 158, BEY 159, BEY 166, BEY 170, BEY 184, BEY 197, BEY 198, BEY 200, JEM 002, JEM 004, MDWR 2, RML 2385, RML 267, Sacré-Coeur Gemmayzé, SFI 001, SFI 1056, SFI 645, SFI 654.

111. The predominance of Antioch was also noted by Butcher, "Small Change," 110. Sawaya, *Monnaie*, 93, remarks as well on the predominance of Antioch over Constantinople especially in *folles*. However, the latter argues that the mint of Carthage seems to outnumber both mints given the relatively large number of *nummi* namely the Cross (592–597 CE) and Palm Tree (597–602 CE) types. Sawaya follows Hahn's and Hahn and Metlich's attribution of the series (*MIB* 2, nos. 133–134; *MIBEC*, nos. 133–134), which is discarded by numerous scholars, mainly Pottier, *Analyse*, 216–217; Morisson, "L'Atelier," 69; and most recently Bijovsky, "From Carthage"; Bijovsky, *Gold Coin*, 317–318.

112. Abou Diwan, *Sarepta V*, 59–60; Bijovsky, *Gold Coin*, 288.

113. Abou Diwan, *Sarepta V*, 129.

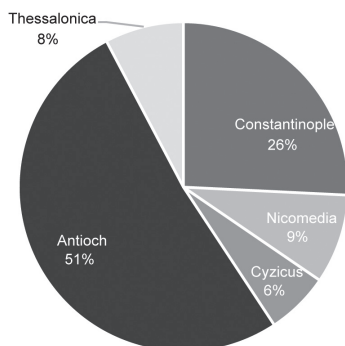


Figure 31. Percentage of coins/mint.

Another hoard found probably in Lebanon or Syria also exhibits a substantial proportion (33%) of Antioch coins.¹¹⁴ Antioch stands as the main provider of currency under Maurice as seen through the hoard found in northern Syria and studied by Pottier.¹¹⁵

The most popular denomination circulating during this period was the *folles* followed by the half-*folles* and quarter-*folles*. The eighth-*folles*, on the other hand, is presently completely absent in the archaeological record of Beirut, suggesting that this denomination was not intended to circulate in Berytus. Bijovsky put forward a similar observation regarding the lack of this denomination in Palestine.¹¹⁶ This absence is most probably related to the significant drop in the production of eighth-*folles* observed by Gândilă in major museum collections and numerous site finds.¹¹⁷ The *folles* was provided by three major mints with Antioch at the forefront, followed by Constantinople and Nicomedia. The half-*folles* was supplied mainly by Antioch, followed by Constantinople and Thessalonica. The latter produced only half-*folles* and had been one of the main suppliers of this denomination since the reign of Justin II.¹¹⁸ The quarter-*folles* seems to be provided almost exclusively by Antioch (Fig. 32).

114. R. Naismith, "A Hoard of Byzantine Copper Coins Ending with the Last Year of Maurice," *Numismatic Chronicle* 164 (2004): 299, nos. 99–108. Antioch stands as the second most prolific provider of currency for Maurice in this hoard behind Constantinople with 32%.

115. Pottier, *Analyse*, 20, table 2; 22, table 4. The proportion of Antioch coins for Maurice in this hoard varies between 45.8% if the illegible coins are counted, and 49.1% in case the latter coins are not counted.

116. Bijovsky, *Gold Coin*, 282.

117. Gândilă, "Early Byzantine," 186.

118. *MIBEC*, 55.

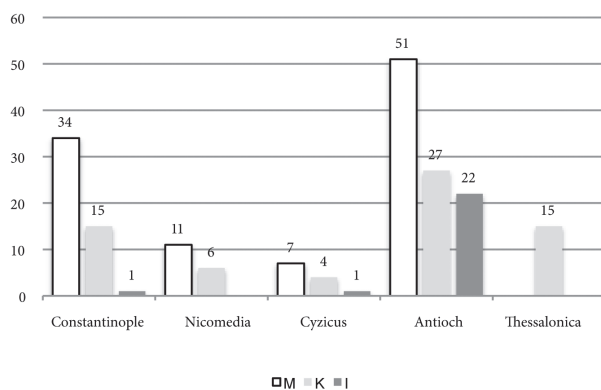


Figure 32. Number of coins per denomination/mint.

Antioch figures not only as the primary supplier of coins but also as the most active mint during this reign, with 20 recorded annual issues and a peak in the number of coins produced in 595/6 CE. In Palestine the coins of that year reach their second-highest peak.¹¹⁹ Two peaks in the production of coins from Antioch are recorded in major museum collections by Gândilă. One in 589/90 CE, related to a typological modification to the *foliis*, and another in 602 CE, on the occasion of Maurice's consulship.¹²⁰ However, these peaks do not seem to be mirrored in the coin finds of Beirut. The flow of Antiochene issues to Berytus seems more related to the city's monetary requirements and less to the volume of production at the source. The mint of Constantinople also stands as the second most dynamic provider of coins, with 19 annual issues and a peak in the number of coins minted in 588/9 CE.

The sharp decline in the circulation of Constantinopolitan issues in Palestine during the last decades of Maurice's reign is visible in Berytus, but with less intensity.¹²¹ The influx of coins from the remaining mints—namely Nicomedia, Thessalonica, and Cyzicus—is rather intermittent, with a peak in the number of coins produced by Nicomedia in 588/9 CE. Cyzicus was a minor supplier of currency, and the influx of coins supplied by this mint becomes intermittent, with two recorded annual issues in 596/7 and 598/9 CE. Bijovsky observes a significant gap in the coinage provided by this mint and interprets its presence in Palestine as the result of trade patterns.¹²² This observation seems to apply likewise

119. Bijovsky, *Gold Coin*, 283, fig. 105.

120. Gândilă, "Early Byzantine," 183, fig. C.

121. Bijovsky, *Gold Coin*, 283.

122. Bijovsky, *Gold Coin*, 284.

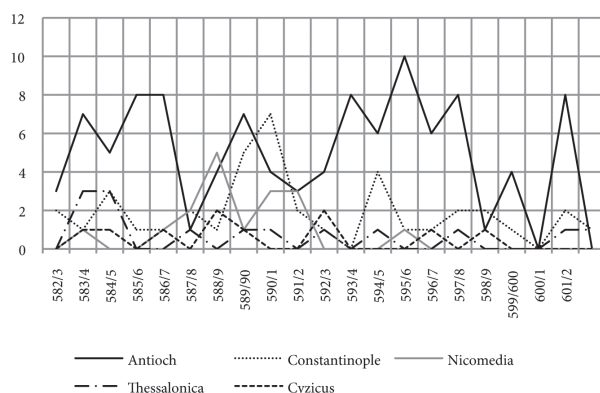


Figure 33. Pattern of annual issues/number of *folles*, half-*folles*, and quarter-*folles* per mint.

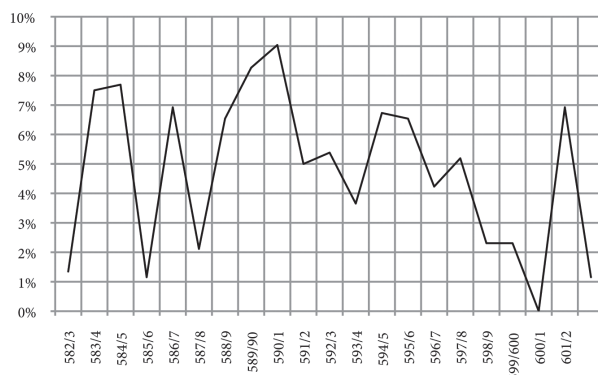


Figure 34. Pattern of annual issues/percentage of *nummia* (*folles* and half-*folles* counted).

to Berytus (Fig. 33). The overall pattern of coin supply under Maurice exhibits a steady influx of coins reaching the markets of Berytus with twenty issues and a peak in the volume of coins—expressed in *nummia*—produced in 590/1 CE. The substantial volume of coins produced between 589/90 and 590/1 CE, which might have reached the market of Berytus within a few years' span, is possibly related to the conclusion of the war with Persia in 591 and the relative stability in the Eastern provinces during the last decades of Maurice's reign.¹²³ Butcher's assumption regarding one or two shipments of coin under Maurice rather than a constant supply needs to be updated. Moreover, his remark concerning a reduction in the number of coins in circulation during the second half of Maurice's

123. Morrisson, "La monnaie," 192; Greatrex and Lieu, *Roman Eastern Frontier*, 174–176.

reign does not seem accurate since nearly 50% of the monetary mass—expressed in *nummia*—reached Berytus during the second part of Maurice's reign (Fig. 34).

VANDALIC AND OSTROGOTHIC COINAGE

One hundred and six Vandalic copper coins have been recorded so far in sixteen archaeological excavations in Beirut,¹²⁴ indicating that this coinage was legal tender in Byzantine Berytus during the sixth century. These coins were issued between 496 and 565 BC. Twelve *nummi* are attributed to Hilderic (523–530 CE) depicting a cross potent within a wreath on the reverse¹²⁵ and three *nummi* to Gelimer (530–534 CE) depicting the monogram of the king on the reverse.¹²⁶ The most prolific type encountered in Beirut is a *nummus* (88 specimens) representing a bust facing right on the obverse, mostly with illegible legend and a palm tree on the reverse.¹²⁷ This type is counted among the most frequently recorded issues outside North Africa according to Bijovsky.¹²⁸ However, if the origin of this type is no longer doubtful given the large number of specimens retrieved from archaeological excavations in Carthage,¹²⁹ the dating of this *nummus* gives rise to much controversy. While Hahn and Hahn and Metlich propose to date this issue during the last year of Maurice's reign (602 CE),¹³⁰ most scholars, namely Pottier, Morrison, and Bijovsky, assign this type to the reign of Justinian I. The palm tree *nummus* type has been found in several hoards associated with Justinianic *nummi*.¹³¹ Moreover, the closure date (580 CE) of the B Hoard found

124. BEY 002, BEY 006, BEY 026, BEY 071, BEY 166, BEY 197, BEY 198, BEY 200, BEY 204, JEM 002, JEM 004, MDWR 2, RML 2385, Sacré-Coeur Gemmayzé, SFI 1056, SFI 107.

125. *MIB I*, no. 20.

126. *MIB I*, no. 25. A second *nummus* type bearing a cross within wreath is also attributed by Morrison to the same sovereign; however, this type is not recorded in the archaeological excavation in Beirut (see Morrison, "L'Atelier," 71).

127. *MIBEC*, no. 134. Hahn attributes the palm tree *nummus* type to the reign of Maurice based on typological criteria (see *MIB II*, 72) and reinforces his assumption by the presence of 12-*nummi* (nos. 34–86) and 6-*nummi* (no. 87) attributed to Maurice and associated with the palm tree (nos. 233–49) issues in a hoard found presumably in Egypt (see W. R. O. Hahn, "A Sixth-Century Hoard of Byzantine Small Change from Egypt, and Its Contribution to the Classification of African Minimi," *Numismatic Chronicle* 140 [1980]: 64–67). W. E. Metcalf, "The Coins—1978," in *Excavations at Carthage 1978 Conducted by the University of Michigan*, ed. J. H. Humphrey (Ann Arbor: University of Michigan Press, 1982) casts doubt over the provenance and composition of the hoard, which combines two different coin groups: Alexandrian coins and *minimi* of the fifth and sixth centuries.

128. Bijovsky, *Gold Coin*, 316–317.

129. See Bijovsky, *Gold Coin*, 317 for the relevant bibliography.

130. *MIBEC*, 57, 169, no. 134.

131. For instance the Zacha hoard, see H. L. Adelson and G. L. Kustas, "A Sixth Century Hoard of Minimi from the Western Peloponnese," *ANSMN* 11 (1964): 159–205; Hoard II

during the excavation of the ancient port of Kenchreai in Corinth precludes attribution of the palm tree type to the reign of Maurice according to Pottier.¹³² Various chronological periods have been assigned to this type: 533–537 CE by Pottier, 530–534 (under the authority of Gelimer) by Asolati, towards the end of the Vandalic period by Morrisson, and 534–565 CE by Bijovsky.¹³³ Pottier suggests two possible attributions for this type: late Vandalic or early Justinianic.¹³⁴ However, the absence of an obverse legend indicates, according to Bijovsky, local anonymous production.¹³⁵ The evidence from the archaeological record in Beirut is not conclusive regarding the dating of these *nummi* given the current absence of sixth-century *minimi* hoards.¹³⁶ For our part we tentatively assume that the bulk of the palm tree *nummi* types probably reached the markets of Berytus between 534 and 551 CE.

Morrisson retraces the diffusion of Vandalic bronze coinage struck before 533 outside Africa. According to her, these issues are found in four major regions: Syria-Palestine, central Greece (especially the Peloponnese), Italy, and Gaul.¹³⁷ Their dissemination took place through both military and commercial channels, and they seem to have remained in circulation long after the reconquest. Morrisson highlights a correlation between the weak diffusion of Vandal coinage and the low level of African fine ware in southern Greece between 450 and 500 CE, while an increase in the proportion of this coinage in the 540s corresponds with a strong proportion of African ceramics during the sixth century.¹³⁸ In Beirut this correlation does not seem to have existed. Reynolds highlights the scarcity of Vandal-period African Red Slip in Beirut and its quasi-absence after 450 CE.

found in the east side of the bath-fountain complex at the Gymnasium in Corinth (Fountain of the Lamps) containing twelve Palm Tree type specimens with a closure date during the reign of Justin II; see J. A. Dengate, "Coin Hoards from the Gymnasium Area at Corinth," *Hesperia* 50 (1981): 153–74, nos. 153–154. See Pottier, *Analyse*, 208–16, for an overview of all the known hoards with the palm tree nummus type.

132. Pottier, *Analyse*, 211.

133. Pottier, *Analyse*, 215–17 considers that the absence of Palm Tree issues from the Ain Kelba hoard buried between 520 and 539 CE indicates a production date posterior to the capture of Carthage by Justinian I; M. Asolati, "L'emissione vandala con il palmizio: Prototipi punici e l'evienza dei riostigli," *Rivista Italiana di Numismatica* 96 (1994–95): 201; Morrisson 1988, 426; Morrisson, "L'Atelier," 69; Bijovsky, *Gold Coin*, 320.

134. Pottier, *Analyse*, 217.

135. Bijovsky, "From Carthage," 170–171; Bijovsky, *Gold Coin*, 320.

136. Sawaya, *Monnaie*, 198–199, nos. 1531–1551, follows the classification in *MIB* II, no. 134 for the attribution of the Palm Tree found in JEM 002.

137. Morrisson, "L'Atelier," 82.

138. Morrisson, "L'Atelier," 81–83.

Beirut seems to have relied on regional imports from Levantine coastal ports until the mid-seventh century CE. African exports to the East became much lower after the Byzantine reconquest of Carthage than during the late fourth to early fifth centuries.¹³⁹

Ostrogothic coinage is found less frequently in archaeological sites in Beirut compared to the Vandalic and Justinianic *nummi*, with 14 recorded specimens found in eight archaeological excavations, and struck by the following sovereigns: Theodoric (493–526 CE), Athalaric (526–534 CE), Theodahad (534–536 CE), and Baduila (541–552 CE).¹⁴⁰ Coins of Athalaric and Baduila are the most represented, with six specimens for each reign. The recorded *minimi* of Athalaric depict a diademed, draped, cuirassed bust of Justinian I right on the obverse and the monogram of Athalaric within a wreath on the reverse. This coin type has been assigned to the mint of Ravenna by Wroth and to Rome by Hahn, Grierson and Blackburn, Arslan, and recently by Metlich. Different values have also been given to this issue: 2.5 *nummi* by Hahn followed by Metlich and 3 *nummi* by Arslan.¹⁴¹ Two different types of *minimi* attributed to Baduila are recorded in Beirut: the first type carries the effigy of Anastasius on the obverse and the inscription */D N REX/B within a wreath on reverse. This type was assigned to the mint of Ticinum (Pavia) by Wroth, Hahn, Grierson and Blackburn, as well as Arslan, and to Rome by Metlich.¹⁴² The other issue represents the monogram of Baduila with a cross above, all within a wreath on the reverse. As with the previous type, the aforementioned scholars adopted the same attributions.¹⁴³ Both coin types were assigned the value of 2.5 *nummi* by Hahn and 3 *nummi* by Arslan.¹⁴⁴

Theodahad is represented by a single specimen recorded in BEY 006¹⁴⁵ that features the bust of Justinian I on the obverse and the monogram of Theodahad within a wreath on the reverse. This coin type is attributed by Wroth and Hahn

139. P. Reynolds, "Trade Networks of the East, 3rd to 7th Centuries: The View from Beirut (Lebanon) and Butrint (Albania), Fine wares, Amphorae and Kitchen Wares," in *LRCW3: Late Roman Coarse Wares, Cooking Wares and Amphorae in the Mediterranean: Archaeology and Archaeometry*, ed. S. Menchelli, S. Santoro, M. Pasquinucci, and G. Guiducci (Oxford: Archaeopress, 2010), 99–100.

140. BEY 002, BEY 006, BEY 070, BEY 166, BEY 184, JEM 002, JEM 004, RML 2385.

141. *BMC Vandals*, no. 54; *MIB I*, no. 80; *MEC I*, 432, no. 135; Arslan, "Dalla classicità," 439, 442, fig. 22; M. A. Metlich, *The Coinage of Ostrogothic Italy* (London: Spink, 2004), no. 88.

142. *BMC Vandals*, no. 28; *MIB I*, no. 88; *MEC I*, 434, nos. 164–165; Arslan, "Dalla classicità," 446, fig. 37; Metlich, *Coinage*, no. 95 var.

143. *BMC Vandals*, nos. 24–27; *MIB I*, no. 87; *MEC I*, 434, no. 163; Arslan, "Dalla classicità," 446, fig. 37; Metlich, *Coinage*, no. 94.

144. *MIB I*, nos. 87–88; Arslan, "Dalla classicità," 446.

145. Butcher, "Small Change," no. 2433.

to Ravenna and by Metlich to Rome.¹⁴⁶ A single specimen with a pearl-diademed and draped bust of Anastasius I right on the obverse and star within wreath found in JEM 002 raises attribution issues: Wroth ascribes this specimen to Theodorich and proposes Ravenna as the mint.¹⁴⁷ Hahn agrees with Wroth's dating; however, he suggests Rome as the production place for this type.¹⁴⁸ Most recently Metlich reattributed this issue to Baduila with Ticinum as the mint.¹⁴⁹ The relatively low number of Ostrogothic coins encountered indicates these issues might have accidentally reached the market in Berytus. The low incidence has been noted by Bijovsky in Palestine also.¹⁵⁰

PHOCAS (602–610 CE)

Forty coins attributed to Phocas were retrieved from 15 excavations in Beirut.¹⁵¹ Antioch maintains its predominance as the chief and most steady provider of currency, followed by Constantinople and Nicomedia (Figs. 35–36). A different pattern emerges in Palestine where Constantinople and Antioch are of equal importance.¹⁵² The coins of Thessalonica, on the other hand, are completely absent in Berytus for this reign and almost absent in Palestine. Bijovsky interprets this lack as evidence of a modification in the imperial monetary policy. The *folles* is the most represented denomination and was mainly provided by Antioch and Constantinople. The half-*folles* stands second and was supplied equally by Antioch and Constantinople. Antioch provided most of the quarter-*folles* in circulation. A single eighth-*folles* minted in Constantinople is recorded so far in Beirut, while this denomination seems absent in Palestine (Fig. 37).¹⁵³ The influx of coins throughout the reign of Phocas seems steady with a significant decline in the volume of coins—expressed in *nummia*—produced in 608/9 CE, which might be related to the Levantine riots that broke out in Antioch, Berytus, and Alexandria in 608/9 CE and were suppressed by Bonosus (Fig. 38).¹⁵⁴ The burial

146. *BMC Vandals*, no. 15, no. 19; *MIB I*, no. 83; Metlich, *Coinage*, no. 91 var.

147. *BMC Vandals*, no. 35.

148. *MIB I*, no. 73. Sawaya, *Monnaie*, no. 1647, endorses Hahn's attribution regarding this specimen.

149. Metlich, *Coinage*, no. 96.

150. Bijovsky, *Gold Coin*, 325–326.

151. BEY 004, BEY 006, BEY 046, BEY 111, BEY 113, BEY 159, BEY 166, BEY 184, BEY 197, JEM 002, JEM 003, JEM 004, MDWR 2, RML 2385, SFI 1056.

152. Bijovsky, *Gold Coin*, 367.

153. Bijovsky, *Gold Coin*, 368.

154. W. E. Kaegi, *Heraclius, Emperor of Byzantium* (Cambridge: Cambridge University Press, 2003), 56.

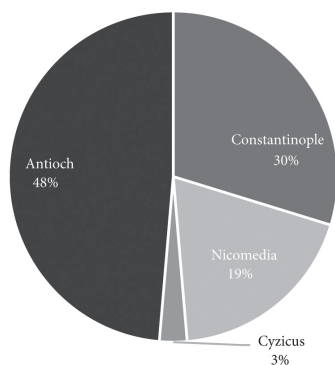


Figure 35. Percentage of coins/mint.

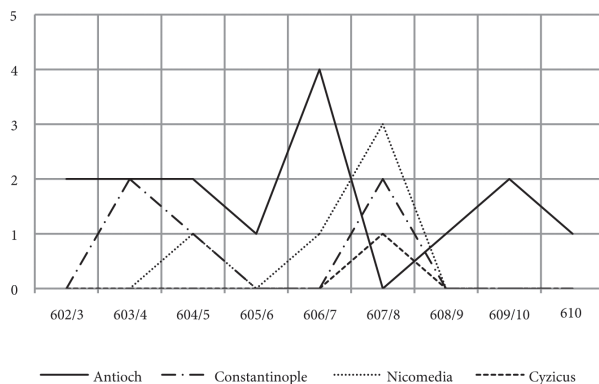
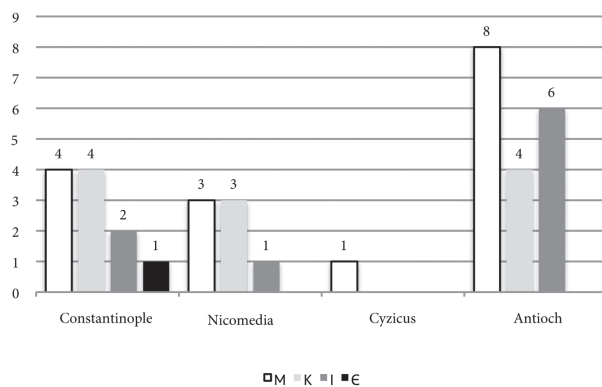
Figure 36. Pattern of annual issues/number of *folles*, half-*folles*, and quarter-*folles* per mint.

Figure 37. Number of coins per denomination/mint.

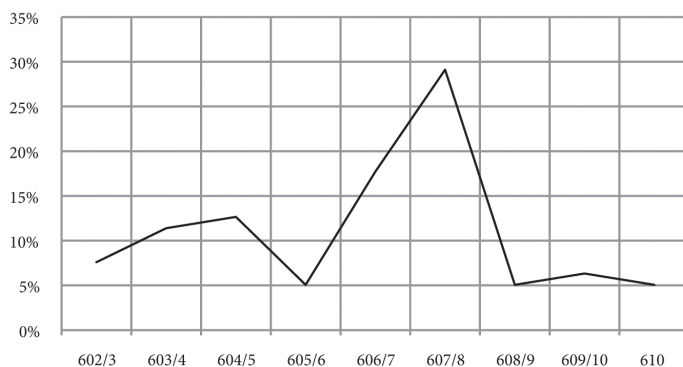


Figure 38. Pattern of annual issues/percentage of *nummia*.

of a hoard found in Sarfand (Sarepta) with a closure date in 607/8 CE might be related to the latter event.¹⁵⁵

HERACLIUS (610–641 CE)

The accession of Heraclius to the throne in 610 CE coincides with the Persian invasion of the Roman Near East. The major cities of Syria successively fell into the hands of Persian armies. Antioch was captured in October 610, followed by Emesa in 611, and Damascus in 613 CE. The Persians led by Shahrvaraz advanced south towards Bostra and Adraa, then westward to Caesarea on the coast in the direction of Jerusalem via Diospolis in 614 CE.¹⁵⁶ The written sources do not provide clear information regarding the status of the Phoenician coast. A question arises as to whether the Byzantines were capable of maintaining their control over the coastal cities of Phoenice Maritima or whether they suffered the same fate as the rest of Syria and Palestine.

The biography of John the Almsgiver, patriarch of Alexandria, highlights the devastation caused by the Persian armies over Syria, Phoenice, and Arabia.¹⁵⁷

155. Abou Diwan, *Sarepta V*, 129–132. A correlation between the Persian invasion of Syria and the burial of this hoard cannot be dismissed.

156. J. F. Haldon, *Byzantium in the Seventh Century: The Transformation of a Culture*, Rev. ed. (Cambridge and New York: Cambridge University Press, 1997), 42; Greatrex and Lieu, *Roman Eastern Frontier*, 190–93; C. Foss, “The Persians in the Roman Near East (602–630 AD),” *Journal of the Royal Asiatic Society* 13.2 (2003): 152–53; Kaegi, *Heraclius*, 77–78; C. Foss, “Historical Introduction: The Persian Near East (602–630 AD) and Its Coinage,” in *Le Monnayage de la Syrie sous l’occupation perse (610–630)*, ed. H. Pottier, Cahiers Ernest Babelon 9 (Paris: CNRS, 2004), 9–12.

157. Anonymous, *V. Ioh. Eleem*, in H. Delehay, “Une vie inédite de saint Jean l’aumônier,” *AnBoll* 45 (1927): 13. See also Greatrex and Lieu, *Roman Eastern Frontier*, 191.

Jewish military campaigns against the city of Tyre during the Persian invasion were also reported by Eutychius.¹⁵⁸ The absence of explicit statements in sources regarding the occupation of the Phoenician coast, namely Berytus, cannot be interpreted by *argumentum ex silentio* as demonstrating the continuity of Byzantine control over this area. The intention of the narratives was not to provide a detailed listing of all the cities taken by the Persians.¹⁵⁹ Baalbek, for instance, was not mentioned by sources in the course of the Persian army's advance in Syria, though we can infer from Al-Balādhuri's mention of a Persian population under the Caliph Mu'āwiyah I that the latter city was subject to Persian control between 613 and 630 CE.¹⁶⁰

Evidence of destruction connected with the Persian invasion in the archaeological record remains inconclusive at this point. In Beirut the excavation conducted in BEY 004 revealed a burnt deposit related to destruction found in a room along with a group of local amphorae, plain wares, jars, lamps, and coins with some of the associated pottery and numismatic material dating to the early seventh century CE.¹⁶¹ In the village of Chhim located between Beirut and Sidon, 55 human burials found in a pit-shaped tomb in the southern part of the vestibule of a Byzantine church are associated by the excavators with a probable massacre perpetrated by the Persians in 613 CE.¹⁶² Signs of a church fire during the first half of the seventh century CE in the vicinity of Yannouh in the hinterlands of Byblus might be related, according to Aliquot, to the Persian invasion.¹⁶³ In any event, a Persian takeover of Berytus could have happened with no significant

158. Eutychius, *Annales*, in *Das Annalenwerk des Eutychios von Alexandrien: ausgewählte Geschichten und Legenden*, ed. and trans. M. Breydy, *Corpus Scriptorum Christianorum Orientalium*, *Scriptores Arabici* 44–45 (Louvain: E. Peeters, 1985), 121–2/101–2. See Kennedy, "Last Century," 168–69; W. E. Kaegi, *Byzantium and the Early Islamic Conquests* (Cambridge: Cambridge University Press, 1992), 117; Greatrex and Lieu, *Roman Eastern Frontier*, 191.

159. Sawaya, *Monnaie*, 96, casts some doubts over Persian control on the Phoenician coast, specifically Berytus, during this period.

160. Al-Balādhuri, *Kitāb fitūh al-buldān*, trans. Philip Khuri Hitti, *Studies in History, Economics and Public Law* 163 (New York: Columbia University, 1916), 180, 228. In the year 42 the Caliph Mu'āwiyah transplanted Persians from Baalbek, Homs, and Antioch to the sea-coasts of the Jordan, e.g., Tyre, Acre, and other places.

161. J. Hayes and A. 'Ala' Eddine, "A Transitional Byzantine-Umayyad Pottery Group," *Bulletin d'Archéologie et d'Architecture Libanaises* 3 (1998–99): 127–38.

162. T. Waliszewski and R. Ortali-Tarazi, "Village romain et byzantin à Chhim-Marjiyyat," *Bulletin d'Archéologie et d'Architecture Libanaises* 6 (2002): 44.

163. J. Aliquot, "La vallée d'Adonis: à propos de Yanouh et le Nahr Ibrahim," *Chronos* 14 (2006): 131. See also P.-L. Gatier and G. Charpentier, "Le grand temple romain de Yanouh," in *Decade: A Decade of Archaeology and History in the Lebanon (1995–2004)*, ed. A. R. A. R. Cl. Doumet-Serhal (Beyrouth, Lebanon: Lebanese British Friends of the National Museum, 2004), 361.

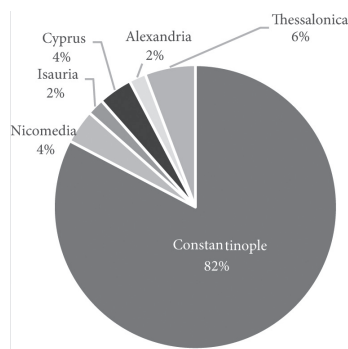


Figure 39. Percentage of coins/mint.

resistance. Foss has previously drawn attention to the limited or near absence of destruction caused by the Persians in Syria.¹⁶⁴ Greatrex and Lieu, on the other hand, have highlighted the small number of soldiers remaining for the defense of Syria and Palestine following the transfer of Roman forces to Egypt by Bonosus, thus explaining the rapid and fluid advance of the Persians in Syria and Palestine.¹⁶⁵ The construction of a dated mosaic floor in 622 CE in the church of Khan Khaldeh located in the vicinity of Beirut, indicates that the religious and social structure does not seem to have been disrupted in the province of Phoenice Maritima under Persian rule.¹⁶⁶

Fifty-three specimens attributed to Heraclius were found in 14 excavations in Beirut.¹⁶⁷ In terms of mint supply, Constantinople stands as the most active provider of currency with 82%, followed by Thessalonica (6%) and Nicomedia (4%) (Fig. 39). The three highest denominations were almost exclusively provided by Constantinople (Fig. 40). Grierson already underlined the importance and vitality of Constantinople as the chief mint under Heraclius.¹⁶⁸ In Palaestina Prima and Secunda, Constantinople stands as the main provider of currency while Nicomedia stands second, followed by Cyzicus.¹⁶⁹ The specimens attributed to the mint of Nicomedia produced in 612/3 CE confirm Grierson's conclusion that Nicomedia was very active during the early years of the reign. Coin production

164. Foss, "Persians," 157; Foss, "Historical Introduction," 9.

165. Greatrex and Lieu, *Roman Eastern Frontier*, 187–188.

166. *SEG* 30, no. 1667.

167. BEY 002, BEY 004, BEY 006, BEY 070, BEY 071, BEY 125, BEY 166, BEY 184, BEY 197, MDWR 2, RML 2385, SFI 1056, SFI 645, SFI 654.

168. *DOC* 2, part 1, 219.

169. Bijovsky, *Gold Coin*, 393.

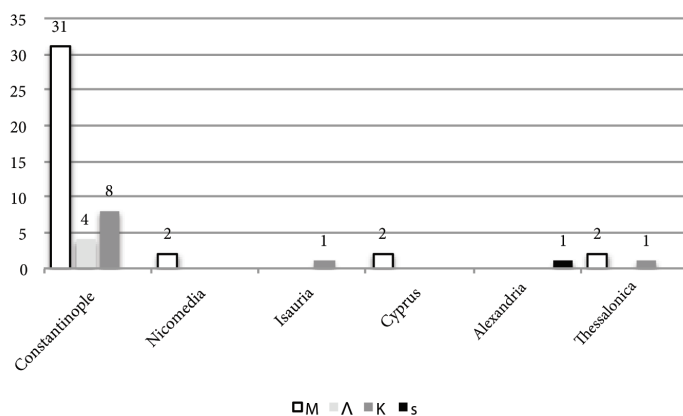


Figure 40. Number of coins per denomination/mint.

at this mint seems to have been discontinued in year 8 (617/8 CE) and resumed between the years 16 and 19 (625/6–629/30 CE).¹⁷⁰ A similar pattern is observed by Bijovsky who reports that there are no coins of Nicomedia that “post date year 612/613” found in the Palestine region.¹⁷¹

Overstriking and countermarking are two distinctive monetary practices that tend to become more regular during the seventh century, especially under Heraclius, and are considered a reflection of growing inflation and a subsequent shortage of copper.¹⁷² Six Heraclian specimens found in Beirut are overstruck. Half of these issues are specimens produced during the early years of Heraclius in 613/4 CE and overstruck on coins of Phocas. Grierson has previously highlighted this tendency since the latter coinage forms a substantial proportion of the circulating medium during the beginning of Heraclius’s reign.¹⁷³ The most recent coins of Heraclius, on the other hand, seem to be overstruck on earlier issues of the same emperor. A *folles* recorded in BEY 184 and produced in Constantinople in 629/30 CE is overstruck on a Heraclian specimen minted in Cyzicus in 613/14 CE, which is also overstruck on a specimen of Phocas minted in Antioch. The practice of using undertypes of the same mint for overstriking the

170. DOC 2, part 1, 219.

171. Bijovsky, *Gold Coin*, 387.

172. C. Morrisson, “Byzantine Money: Its Production and Circulation,” in *The Economic History of Byzantium from the Seventh through the Fifteenth Century, I–III*, ed. A. E. Laiou (Washington, D.C.: Dumbarton Oaks, 2002), 929.

173. DOC 2, part 2, 218.

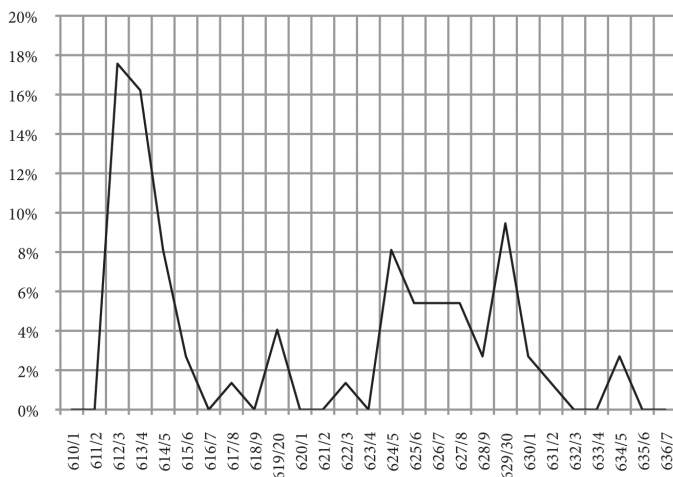


Figure 41. Pattern of annual issues/percentage of *nummia*.

new coins is not recorded in Beirut, unlike in Palestine.¹⁷⁴ Two Constantinopolitan *folles* found in BEY 184 and BEY 166 are overstruck on earlier issues produced in Nicomedia and Antioch. A single *follis* found in BEY 184 and minted in Constantinople between 639/40 and 641 CE, is stamped with a countermark depicting an eagle with upraised wings.¹⁷⁵ The date of the host coin gives further support to the latest hypothesis put forward by Schulze. He places the application of the eagle countermark on worn Byzantine coins between 637 and 640 CE, during the siege of Caesarea. The author proposes the latter city as a probable place for the countermarking process.¹⁷⁶

The Heraclian pattern of coin supply between 610 and 630 CE exhibits a constant influx of coins to the markets of Berytus involving 14 annual issues. Three remarkable peaks are noted for the coins of the years 612/3 and 613/4 CE, during the Persian invasion of Syria, followed by a third increase in during the first year of restored Byzantine control over Syria. The coins produced during the years 616/7, 618/9, 620/1, 621/2, 622/3, and 623/4 CE are not recorded at present in Beirut excavations. A similar pattern of supply is noted in Palaestina Prima and Secunda with almost identical gaps except for coins of the years 620 and 622 CE (Fig. 41).¹⁷⁷ Foss has suggested that the Byzantine copper coins arrived

174. Bijovsky, *Gold Coin*, 396.

175. *MIB* III, 226, nos. 166–167 (j. 30 or 31–Δ).

176. W. Schulze, “The Byzantine ‘Eagle’ countermark—Re-attributed from Egypt to Palestine,” *Israel Numismatic Research* 4 (2009): 116–19.

177. Bijovsky, *Gold Coin*, 418–419.

in large quantities during the first year of occupation and decreased as the war continued.¹⁷⁸ His observation seems consistent with the monetary profile found in Beirut, since the first years of the Persian occupation are characterized by a substantial increase followed by a decline in the coin supply as seen through the coins minted between 615/6 and 623/4 CE. However, a rise is observed starting from the latter date. The profile exhibited in Beirut indicates that commercial exchange between the conquered region and Byzantine-controlled territory was not interrupted and the trade circuit remained operational. The geographic location of Berytus on the Mediterranean coast might have favored the continued circulation of official Byzantine base-metal coinage. Foss has previously demonstrated the persistence of commercial exchange between Persian and Byzantine territories based on hoards with burial dates in 630–635 CE that contain coins of Heraclius minted between 610 and 616 CE.¹⁷⁹

As Pottier has recently shown, the shortage in official Byzantine bronze currency circulating in the occupied territories led the Persian authorities to produce a copper coinage based on Byzantine prototypes. He suggests that this coinage was struck by a mint located in northern Syria over a period of 20 years, imitating regular contemporary and earlier Byzantine types of Phocas, Phocas and Leontia, Heraclius and Heraclius Constantine, Justin II and Sophia, and Maurice. The author subdivides the production of these coins into four different periods: 1) 610–615 CE, 2) 616–620 CE, 3) 621–625 CE, and 4) 626–631 CE. The identification of these coins was based upon metrological and iconographic criteria. Pottier uses hoard evidence and excavation material to suggest that this coinage may have circulated in northern Syria.¹⁸⁰ However, the coin assemblage of Beirut has not yet delivered specimens of the pseudo-Byzantine coinage issued under Persian rule. Furthermore no specimen has been recorded in Palestine according to Bijovsky.¹⁸¹

The quasi-regular pattern of official Byzantine coin supply observed in the provinces of Phoenice Maritima, Palaestina Prima, and Palaestina Secunda between 613 and 630 indicates that the pseudo-Byzantine coinage was probably not meant to circulate in these regions. The pattern of coin supply following the

178. C. Foss, *Arab-Byzantine Coins: An Introduction, with a Catalogue of the Dumbarton Oaks Collection*, Dumbarton Oaks Byzantine Collection publications 12 (Washington, D.C.: Dumbarton Oaks, 2008), 10.

179. Foss, "Historical Introduction," 16; Foss, *Arab-Byzantine*, 10–11 with relevant references.

180. H. Pottier, *Le Monnayage de la Syrie sous l'occupation perse (610–630)*, Cahiers Ernest-Babelon 9 (Paris: CNRS, 2004).

181. Bijovsky, *Gold Coin*, 393, an observation previously argued by Foss, *Arab-Byzantine*, 12.

Byzantine reconquest of Syria seems steady until the year 632/3 CE. The influx of coins becomes intermittent during the last years of Byzantine control before the Muslim occupation.

CONCLUSION

The general outlines of coin use in Byzantine Beirut that stand out from this study are summarized as follows:

Single coin finds and hoards from Beirut demonstrate the predominance of small-module coins of Anastasius (498–512 CE) and clearly confirm the use of these issues as the main form of currency throughout the first half of the sixth century. The paucity of large-module coins of Anastasius I as well as specimens of Justin I brings further support to this assumption. The profile that emerges from the coin finds of Beirut and Sarafand (Sarepta) indicates the existence of a closed monetary environment most likely restricted to the province of Phoenice Maritima.

The practice of punchmarking small-module issues, which seems to have been intended as a tool to restore them to provisional legal tender status following the introduction of the second monetary reform of Anastasius I, does not seem to have taken place in Berytus. The recorded punchmarked specimens might have made their way to the markets of Berytus from neighboring provinces such as Palaestina Prima and Secunda. The near-total absence of Anastasian large-module *folles* gives weight to this statement.

The distinctive monetary pattern detected in Beirut prompts the question as to whether it reflects an official or a locally determined monetary policy. The predominance and long-term use of pre-512 issues indicate that the injection of this medium was not restricted to the period between 498 and 512 CE. Consignments of small-module currency withdrawn from other regions of the empire should have supplied the markets of Berytus after 512 CE. Such a measure definitely would have required the existence of an official monetary policy. As Hall has already stated, the picture that emerges from written sources reflects a growing preponderance of imperial control over Phoenicia under the reign of Justinian I.¹⁸²

The geographical location of Berytus and its economic base, which mainly relied on agricultural and artisan production, as well as the substantial effect of the law school on the economy,¹⁸³ raises a question concerning the modalities of interactions with the Mediterranean world on the monetary level. What type of

182. Hall, *Roman Berytus*, 109–113.

183. Hall, *Roman Berytus*, 35–37.

criterion was applied to the circulating base-metal medium inside the markets of Berytus: the nominal value or the weight of the coins based on the current exchange rate between copper and gold?

The coin assemblage of Beirut indicates the absence of official consignment of currency in the name of Justin II. The retrieved specimens might have reached Berytus by means of the trade circuit.

The monetary profile of Berytus under Justinian I still exhibits significant peculiarities, as seen by the bias towards the dated post-reform (538–565 CE) issues compared to numerous Near Eastern sites. The dated *folles* and half-*folles* of Justinian I retrieved from the archaeological record confirm the use of these issues as legal tender during this period. Their absence in hoards with burial dates in 551 CE, on the other hand, reflects a clear predilection for Anastasius I small-module issues. The earthquake of July 551 CE had a direct impact on the pattern of coin supply during the following years. However, the process of rebuilding the city, which the narratives suggest was delayed, is mirrored in a substantial surge in the influx of coins produced in 556/7 and 557/8 CE.

The monetary profile under Justin II is characterized by a regular influx of coins with a significant increase in the number of specimens. The peculiar pattern of coins in circulation that characterized Berytus during the first half of the sixth century seems to have ended under Justin II. The medium of exchange under this reign seems in line with the pattern exhibited in numerous Near Eastern sites.

The reign of Tiberius is likewise characterized by a regular pattern of supply and relatively high number of coins considering his short reign, with a significant rise in the number of coins toward the end of his reign.

Under the reign of Maurice a modification in the pattern of supply is observed, with Antioch as the most prolific and active provider of currency. A regular influx of coins is noted under Maurice. The conclusion of war with Persia in 591 is reflected in the pattern of coin supply, namely through the coins produced in 589/90 and 590/1 CE.

The Vandalic coinage found in substantial quantities in the archaeological record of Beirut indicates its use as legal tender and corroborates the existence of official consignment. Ostrogothic coins, found in lesser number, seem to have accidentally reached the city's markets.

The numismatic profile under Phocas exhibits a constant influx of coin with Antioch at the forefront. The Levantine riots which broke out in Antioch, Berytus, and Alexandria in 608/9 CE are reflected through the decline in the volume of coins reaching the city of Beirut.

Persian control over Syria and Palestine, including Berytus, does not seem to have affected the supply of regular Byzantine issues. The pseudo-Byzantine coinage produced under the Persian occupation to make up for the lack of currency was probably not meant to circulate on the coast.

ACKNOWLEDGEMENTS

I wish to express my gratitude to Dr. Assaad Seif, for authorizing me to make use of the numismatic data of the archaeological excavations conducted under his scientific direction on the following sites: ASH 004, BEY 166, BEY 070, BEY 071, BEY 111, BEY 154, BEY 170, BEY 183, BEY 184, BEY 204, MDWR 2, MDWR 33, MINA 1375, RML 2385, RML 001, RML 131, RML 267, RML 79, SFI 001, SFI 1056, SFI 1075, SFI 237, SFI 654, and Sacré-Coeur Gemmayzé. I am indebted to Dr. Ziad Sawaya for putting at my disposal the numismatic databases for ASH 004, BEY 070, BEY 071, BEY 111, BEY 154, BEY 170, BEY 183, BEY 184, BEY 204, MDWR 2, MDWR 33, MINA 1375, RML 2385, RML 001, RML 131, RML 267, RML 79, SFI 001, SFI 1056, SFI 237, SFI 654, Sacré-Coeur Gemmayzé, and BEY 125. The coins of the following sites were studied by Abou Diwan: SFI 645, SFI 1075, BEY 166, BEY 133, BEY 142, BEY 003, and SFI 405. I would also wish to acknowledge my gratefulness to Dr. Dominique Pieri for allowing me the use of the coin database of BEY 002 and BEY 026. The preliminary identification of the coins of both sites was made by Christian Augé and Dr. Ziad Sawaya. I am also thankful to the following site coordinators: Lucia Sheikho (BEY 184), Hadi Choueri (SFI 1056, SFI 645), Christine Matar Beayno (BEY 166), and Georges El Haibeh (RML 2385) for providing me high-resolution photos for the Anastasian and Heraclian puchmarked coins. I also wish, finally, to thank Dr. Andrei Gândilă for reading and commenting on the final draft.

REFERENCES

Primary Sources

- Al-Balādhuri. *Kitāb fitūh al-buldān*. In *Studies in History, Economics and Public Law*, tr. P. Hitti. New York: Columbia University, 1916.
- Agathias of Myrina. *Agathiae Myrinaei Historiarum Libri Quinque*, ed. R. Keydell, Berlin: de Gruyter, 1967; English trans. J.D. Frendo, *Agathias: The Histories*, Berlin/New York: de Gruyter, 1975.
- Pseudo-Dionysius (Pseudo-Dionysios) [of Tell-Mahrè]. *Chronicon Anonymum Incertiauctoris Pseudo-Dionysianum vulgo dictum*. CSCO, Scriptores Syri, Series III, ed. J. B. Chabot with Latin translation, 2 vols. Paris: E Typographeo Reipublicae, 1927–33; Louvain: L. Durbecq, 1949–1952.
- John Malalas. *Chronographia*, edited by L. Dindorf. Bonn: CSHB, 1831; reprinted in PG 97.9–790; English trans. E. Jeffreys, M. Jeffreys, and R. Scott, *The Chronicle of John Malalas*. Melbourne: Australian Association for Byzantine Studies, 1986.
- Anonymous. *V. Ioh. Eleem. Une vie inédite de saint Jean l'aumonier*. ed. H. Delehay, *AnBoll* 45 (1927): 5–74. (Partial) trans. in E. Dawes and N. H. Baynes, *Three Byzantine Saints*, 199–206. Oxford: Oxford University Press, 1948.
- Eutychius, *Annales*. Edited and translated by M. Breydy, *Das Annalenwerk des Eutychios von Alexandrien*. CSCO Scr. Arab. 44–5. Louvain, 1985; trans. Pockock, PG 111.

Secondary sources

- Abou Diwan, G. “Un trésor monétaire de Beyrouth. À propos de la circulation des monnaies d’Anastase au VI^e siècle.” *Numismatic Chronicle* 168 (2008): 303–19.
- . *Sarepta V. The Coin Finds of Areas I and 2 (X,Y): Persian, Hellenistic, Roman, Byzantine and Medieval Periods*. Bulletin d’Archéologie et d’Architecture Libanaises, vol. hors-série 14, 2016.
- Adelson, H. L., and G. L. Kustas. “A Sixth Century Hoard of Minimi from the Western Peloponnese.” *ANSMN* 11 (1964): 159–205.
- Aliquot, J. “La vallée d’Adonis: à propos de Yanouh et le Nahr Ibrahim.” *Chronos* 14 (2006): 125–35.
- Arslan, E. A. “Dalla classicità al Medioevo. La moneta degli Ostrogoti.” *Numismatica e Antichità Classiche* 33 (2004): 429–62.
- Asolati, M. “L’emissione vandala con il palmizio: Prototipi punici e l’evienza dei riostigli.” *Rivista Italiana di Numismatica* 96 (1994–95): 187–202.

- Belien, P. "Hoard of Byzantine Folles from Beirut." *Numismatic Chronicle* 165 (2005): 314–22.
- Bell, H. W. *Sardis*. Vol. XI, part I, 1910–1914. Leiden: Brill, 1916.
- Bijovsky, G. "From Carthage to the Holy Land." *Israel Numismatic Research* 6 (2011): 163–73.
- . *Gold Coin and Small Change: Monetary Circulation in Fifth–Seventh Century Byzantine Palestine*. Polymnia Numismatica antica e medievale Studi 2. Trieste (Italy): EUT Edizioni Università di Trieste.
- Brown, J. P. *The Lebanon and Phoenicia: Ancient Texts Illustrating Their Physical Geography and Native Industries*. American University of Beirut Centennial publications. Beirut: American University of Beirut, 1969.
- Butcher, K. "BEY 006 The Coins—Preliminary Report." *Bulletin d'Archéologie et d'Architecture Libanaises* 1 (1996): 207–11.
- . "Coinage in Sixth Century Beirut: Preliminary Observations." *Berytus* 43 (1997–98): 173–80.
- . "Small Change in Ancient Beirut. The Coin Finds from BEY 006 and 045: Persian, Hellenistic, Roman, and Byzantine Periods." *Berytus* 45–46 (2001–02).
- Buttrey, T. V., and R. B. Hitchner. "The Coins—1976." In *Excavations at Carthage 1976 Conducted by the University of Michigan*, edited by J. H. Humphrey. Ann Arbor: University of Michigan, 1978.
- Callegher, B. "La riforma della moneta di rame del 538 (Giustiniano I) e il ruolo della c.d. legge di Gresham." Paper read at I Ritrovamenti Monetali e la Legge di Gresham. Atti del III Congresso Internazionale di Numismatica e di Storia Monetaria., at Padova, 28–29 ottobre 2005.
- Casey, P. J. "Justinian, the 'Limitanei,' and Arab-Byzantine Relations in the 6th c." *Journal of Roman Archaeology* 9 (1996): 214.
- Chéhab, M. *Mosaïque du Liban*. *Bulletin du Musée de Beyrouth* 15 (1959).
- Dengate, J. A. "Coin Hoards from the Gymnasium Area at Corinth." *Hesperia* 50 (1981): 153–74.
- DOC 1 = Bellinger, A. R.. *Catalogue of the Byzantine Coins in the Dumbarton Oaks Collection and in the Whittemore Collection 1. Anastasius I to Maurice*, 491–602. Washington, D.C.: Dumbarton Oaks, 1966.
- DOC 2 = Grierson, P. *Catalogue of the Byzantine Coins in the Dumbarton Oaks Collection and in the Whittemore Collection 2. Phocas to Theodosius III*, 602–717. Washington, D.C.: Dumbarton Oaks, 1968.
- Foss, C. "The Persians in the Roman Near East (602–630 AD)." *Journal of the Royal Asiatic Society* 13.2 (2003): 149–70.

- . “Historical Introduction: The Persian Near East (602–630 AD) and Its Coinage.” In *Le Monnayage de la Syrie sous l’occupation perse (610–630)*, edited by H. Pottier. Cahiers Ernest Babelon. Paris, 2004.
- . *Arab-Byzantine Coins: An Introduction, with a Catalogue of the Dumbarton Oaks Collection*. Dumbarton Oaks Byzantine Collection publications 12. Washington, D.C.: Dumbarton Oaks, 2008.
- Gândilă, A. “Some Aspects of the Monetary Circulation in the Byzantine Province of Scythia during the 6th and 7th Century.” In *Numismatic, Sphragistic and Epigraphic Contributions to the History of the Black Sea Coast*, edited by I. Lazarenko. Varna, 2008.
- . “Early Byzantine Coin Circulation in the Eastern Provinces: A Comparative Statistical Approach.” *American Journal of Numismatics* 21 (2009): 151–225.
- . “Heavy Money, Weightier Problems: The Justinianic Reform of 538 and Its Economic Consequences.” *Revue Numismatique* 169 (2012): 363–402.
- . “Going East: Western Money in the Early Byzantine Balkans, Asia Minor and the Circumpontic Region (6th–7th c.)” *Rivista Italiana di Numismatica* 117 (2016): 129–88.
- Gatier, P.-L., and G. Charpentier. “Le grand temple romain de Yanouh.” In *Decade: A Decade of Archaeology and History in the Lebanon (1995–2004)*, edited by A. R. A. R. Cl. Doumet-Serhal. Beyrouth, Lebanon: Lebanese British Friends of the National Museum, 2014.
- Greatrex, G., and S. N. C. Lieu. 2002. *The Roman Eastern Frontier and the Persian Wars, AD 226–363: A Narrative Sourcebook*. London: Routledge.
- . *The Roman Eastern Frontier and the Persian Wars: A Narrative Sourcebook, Part II*. London and New York: Routledge, 2002.
- Grierson, P. “The Monetary Reforms of Anastasius and Their Economic Consequences.” In *Proceedings of the International Numismatic Convention, 27–31 December 1963, Tel Aviv*, ed. A. Kindler and C. H. V. Sutherland, 283–302. Jerusalem, 1967.
- . *Byzantine Coins*. The Library of Numismatics. London: Methuen; Berkeley and Los Angeles: University of California Press, 1982.
- Hahn, W. R. O. “A Sixth-Century Hoard of Byzantine Small Change from Egypt, and Its Contribution to the Classification of African Minimi.” *Numismatic Chronicle* 140 (1980): 64–70.
- Haldon, J. F. *Byzantium in the Seventh Century: The Transformation of a Culture*. Rev. ed. Cambridge and New York: Cambridge University Press, 1997.
- Hall, L. J. *Roman Berytus: Beirut in Late Antiquity*. London: Routledge, 2004.

- Hayes, J., and A. 'ALa' Eddine. "A Transitional Byzantine-Ummayyad Pottery Group." *BAAL* 3 (1998–99): 127–38.
- Hendy, M. F. *Studies in the Byzantine Monetary Economy: c. 300–1450*. Cambridge: Cambridge University Press, 1985.
- Kaegi, W. E. *Byzantium and the Early Islamic Conquests*. Cambridge: Cambridge University Press, 1992.
- . *Heraclius, Emperor of Byzantium*. Cambridge: Cambridge University Press, 2003.
- Kennedy, H. "The Last Century of Byzantine Syria: A Reinterpretation." *Byzantinische Forschungen* 10 (1985): 41–83.
- Lockyear, K. "Where Do We Go From Here? Recording and Analysing Roman Coins from Archaeological Excavations." *Britannia* 37 (2007): 211–24.
- . "Dating Coins, Dating with coins." *Oxford Journal of Archaeology* 31 (2012): 191–211.
- MEC I = Grierson, P., and M. Blackburn. *Medieval European Coinage* 1. *The Early Middle Ages*. Cambridge: Cambridge University Press, 1986.
- Metcalf, D. M. "The Metrology of Justinian's *Follis*." *Numismatic Chronicle* 20 (1960): 209–18.
- Metcalf, D. M. "Some Byzantine and Arab-Byzantine coins from Palestina Prima." *Israel Numismatic Journal* 2.3/4 (1964): 32–46.
- . *The Origins of the Anastasian Currency Reforms*. Amsterdam: Adolf M. Hakkert, 1969.
- Metcalf, W. E. "The Coins—1978." In *Excavations at Carthage 1978 Conducted by the University of Michigan*, ed. J. H. Humphrey. Ann Arbor: University of Michigan Press, 1982.
- Metlich, M. A. *The Coinage of Ostrogothic Italy*. London: Spink, 2004.
- MIB 3 = Hahn, W. *Von Heraclius bis Leo III. / Alleinregierung (610–720)*. *Moneta Imperii Byzantini* 3. Österreichische Akademie der Wissenschaften Philosophisch Historische Klasse Denkschriften 148. Veröffentlichungen der numismatischen Kommission 10. Vienna: Österreichische Forschungsgesellschaft für Numismatik, 1981.
- MIBE = Hahn, W., and M. Metlich. *Money of the Incipient Byzantine Empire (Anastasius I–Justinian I, 491–565)*. Veröffentlichungen des Instituts für Numismatik und Geldgeschichte der Universität Wien 6. Vienna: Österreichische Forschungsgesellschaft für Numismatik, 2000.
- MIBEC = Hahn W., and M. Metlich. *Money of the Incipient Byzantine Empire Continued (Justin II–Revolt of the Heraclii, 565–610)*. Veröffentlichungen des Instituts für Numismatik und Geldgeschichte der Universität Wien 13. Vienna: Österreichische Forschungsgesellschaft für Numismatik, 2009.

- Morrisson, C. "Coin Finds in Vandal and Byzantine Carthage: A Provisional Assessment." In *The Circus and a Byzantine Cemetery at Carthage*, edited by J. H. Humphrey. Ann Arbor: University of Michigan Press, 1988.
- . "La monnaie en Syrie Byzantine." In *Archéologie et histoire de la Syrie II. La Syrie de l'époque achéménide à l'avènement de l'Islam*, edited by J.-M. Dentzer and W. Orthmann. Saarbrücken: Saarbrücker Druckerei und Verlag, 1989.
- . "Byzantine Money: Its Production and Circulation." In *The Economic History of Byzantium from the Seventh through the Fifteenth Century, I–III*, edited by A.E. Laiou. Washington, D.C.: Dumbarton Oaks, 2002.
- . "L'Atelier de Carthage et la diffusion de la monnaie frappée dans l'Afrique Vandale et Byzantine (439–695)." *Antiquité Tardive* 11 (2003): 65–84.
- Morrisson, C., V. Popović, and V. Ivanišević. *Les Trésors monétaires byzantins des Balkans et d'Asie Mineure (491–713)*. Paris: Lethellieux, 2006.
- Naismith, R. "A Hoard of Byzantine Copper Coins Ending with the Last Year of Maurice." *Numismatic Chronicle* 164 (2004): 296–99.
- Noeske, H.-C. *Münzfunde aus Ägypten*. Studien zu Fundmünzen der Antike Bd 12, 22. Berlin: Mann Verlag, 2004.
- Perring, D., H. Seeden, P. Sheehan, and T. Williams. "Bey 006, 1994–1995, the Souks Area Interim Report of the AUB Project." *Bulletin d'Archéologie et d'Architecture Libanaises* 1 (1996): 176–206.
- Pottier, H. *Analyse d'un trésor de monnaies en bronze enfoui au VI^e siècle en Syrie Byzantine—contribution à la méthodologie numismatique*. Vol. 10, Cercle d'études numismatiques, 1983.
- . *Le Monnayage de la Syrie sous l'occupation perse (610–630)*. Vol. 9, Cahiers Ernest Babelon. Paris, 2004.
- Reynolds, P. "Trade Networks of the East, 3rd to 7th Centuries: The View from Beirut (Lebanon) and Butrint (Albania), Fine Wares, Amphorae and Kitchen Wares." In *LRCW3: Late Roman Coarse Wares, Cooking Wares and Amphorae in the Mediterranean: Archaeology and Archaeometry*, edited by S. Menchelli, S. Santoro, M. Pasquinucci, and G. Guiducci. Oxford: Archaeopress, 2010.
- Saghieh, M. "Bey 004 'Zone des Eglises.'" *Bulletin d'Archéologie et d'Architecture Libanaises* 1 (1996): 36–59.
- Saghieh Beidoun, M. "Evidence of the Earthquake in the Current Excavation of Beirut City Center." *National Museum News* 5 (1997): 15–18.
- Saghieh Beidoun, M., M. 'Allam, A. 'Ala' Eddine, and S. Abulhosn. "The Monumental Street 'Cardo Maximus' and the Replaning of Roman Berytus." *Bulletin d'Archéologie et d'Architecture Libanaises* 3 (1998–99): 95–126.
- Sawaya, Z. "Coins." In *Bey 020, Preliminary Report of the Excavations 1995*, ed. U.

- Finkbeiner and H. Sader. *Bulletin d'Archéologie et d'Architecture Libanaises* 2. Beirut, 1997.
- . *Monnaie de JEM 002, JEM 003 et JEM 004*. *Bulletin d'Architecture et d'Archéologie Libanaise*, hors-série 13. Beirut, 2016.
- Sawaya, Z., and F. Rahal. "BEY 004 et BEY 013, les monnaies. Rapport préliminaire." *Bulletin d'Archéologie et d'Architecture Libanaises* 3 (1998-99): 165–68.
- Scheers, S. "Catalogue of the Coins Found in 1992." In *Sagalassos II: Report on the Third Excavation Campaign of 1992*, ed. M. Waelkens and J. Poblome. Leuven: Leuven University Press, 1993.
- . "Catalogue of the Coins Found in 1993." In *Sagalassos III: Report on the Fourth Excavation Campaign of 1993*, edited by M. Waelkens and J. Poblome. Leuven: Leuven University Press, 1995.
- . "Coins Found in 1996 and 1997." In *Sagalassos V: Report on the Survey and Excavation Campaigns of 1996–1997*, edited by M. Waelkens and L. Loots. Leuven: Leuven University Press, 2000.
- Scheers, S., H. Vanhaverbeke, and J. Poblome. "Coins Found in 1994 and 1995." In *Sagalassos IV: Report on the Survey and Excavation Campaigns of 1994 and 1995*, edited by M. Waelkens and J. Poblome. Leuven: Leuven University Press, 1997.
- Schulze, W. "The Byzantine 'Eagle' countermark—Re-attributed from Egypt to Palestine." *Israel Numismatic Research* 4 (2009): 113–20.
- Waliszewski, T., and R. Ortali-Tarazi. "Village romain et byzantin à Chhim-Marjiyat." *Bulletin d'Archéologie et d'Architecture Libanaises* 6 (2002): 5–106.
- Walmsley, A. "Coin Frequencies in Sixth and Seventh Century Palestine and Arabia: Social and Economic Implications." *Journal of the Economic and Social History of the Orient* 42.3 (1999): 326–50.