

Oxford Centre for Maritime Archaeology Monographs

Thonis-Heracleion in Context

Edited by
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Oxford Centre for Maritime Archaeology: Monograph 8
School of Archaeology, University of Oxford
2015

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Published by the
Oxford Centre for Maritime Archaeology
School of Archaeology
36 Beaumont Street, Oxford OX1 2PG

ISBN 978-1-905905-33-1

British Library Cataloguing in Publication Data.
A catalogue record for this book is available from the British Library.



F O U N D A T I O N

Front cover: Image; © Christoph Hormann; additions by Carlos Cabrera-Tejedor
Back cover (clockwise: limestone slab carved with head of ram of Amun, Thonis-Heracleion,
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Greek-style weight, Thonis-Heracleion, photo: E. van der Wilt.

Designed and produced by Oxford Book Projects
Printed in Great Britain by Berforts Information Press

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6 Coin circulation and coin production at Thonis-Heracleion and in the Delta region in the Late Period

Andrew Meadows

Introduction

Like no other category of objects from an archaeological site, coins allow us to tell stories. Even in antiquity, low value coins were everyday objects, and have the power to talk to us about the everyday activities of everyday inhabitants of the city where they are found. Coins also have characteristics that allow them to tell more detailed stories than other objects. They tell us, generally quite explicitly, where they were made, and by whom. More often than not we can say with some degree of precision when they were made. And so when we have known contexts of discovery, we can draw clear lines from the time and place of production to the time and place of deposition.

The site of Thonis-Heracleion occupies perhaps a unique place in the history of the study of excavation coins. In part, of course, Thonis-Heracleion, a small town entirely underwater, with a history stretching from the Pharaonic Period to the Roman, is one of a kind. Its submarine fate has shielded it from both the casual and systematic removal and looting of coins over the years since its demise. Unique also, however, is the method of recording the numismatic finds. Few sites, even on land, have benefitted from the careful recording of find spots of individual coins. The data collected from Thonis-Heracleion allows us, in a way that has never been possible before, to draw maps of the find spots of coins across an entire ancient settlement, and to chart the ebb and flow of economic activity across the chronological span of its occupation.

But for all the opportunities, the numismatic material from Thonis-Heracleion brings with it its own set of challenges. The coins are, for the most part, appallingly badly preserved and exceptionally difficult to identify with precision. Furthermore, a very large number have been recovered in the decade since survey and excavation have begun. Moreover, a substantial majority of the coin finds come not from excavation, but from survey. This means that they have been recovered not necessarily from the point of final deposit in antiquity, but from a layer of sediment that covers the entire site, in which objects have been moving for hundreds of years. This last circumstance appears at first glance to be a significant cause for concern in the interpretation of the location of finds. However, as we shall see, there is some cause

to think that, while movement of coins may have taken place over numbers of meters, it is not the case that coins have moved large distances across the site.

In the survey that follows, I draw upon the examination of 2,200 coins, of which approximately 1,400 have proven identifiable in some respect. Examination of the objects has proceeded, broadly speaking by season, and incorporates finds made between 2004 and 2010. In addition to these individual finds, I consider briefly four hoards that have been recovered from the site. To the evidence of the coins is added also some consideration of the implications of the discovery on the site of an ancient coin die that has been published elsewhere.¹

My aim here is to offer a (necessarily preliminary) picture of what the evidence may (1) tell us of the behaviour of coins within the town of Thonis-Heracleion; (2) reveal about the pattern of coin finds observable at Thonis-Heracleion compared to those at three other sites for which figures are available; and (3) contribute to reconstructing the picture of coin production and coin use in the Delta region in the late Classical and early Hellenistic Periods.

The nature and pattern of finds at Thonis-Heracleion

Hoards

We may begin with hoards—groups of coins deposited together in antiquity—partly because they form a separate and important category of evidence, and partly because they provide an introduction to the possibilities and limitations of the evidence. Four hoards are so far known to me from the site of Thonis-Heracleion.

The first of these consists of a group of gold quarter staters of Ptolemy I (*EH* 1.153).² The coins are currently on exhibition, but I was able to record them at the Greco-Roman Museum in Alexandria in 2005. Gold coins are not common, needless to say, among the finds from Thonis-Heracleion, or indeed from the excavation of any ancient site. Thus, to find five gold coins of identical type within a single area of the site is as sure an indication that there can be that these coins were deposited together. That said, these coins were not excavated, but were recovered during survey work around the main

¹ Meadows 2011.

² H4536, SCA 318; H4504, SCA 313; H4160, SCA 312; H3578, SCA 304;

H3642, SCA 307. Goddio and Fabre 2006: 269–71 nos 320, 319, 318, 317 and 328.

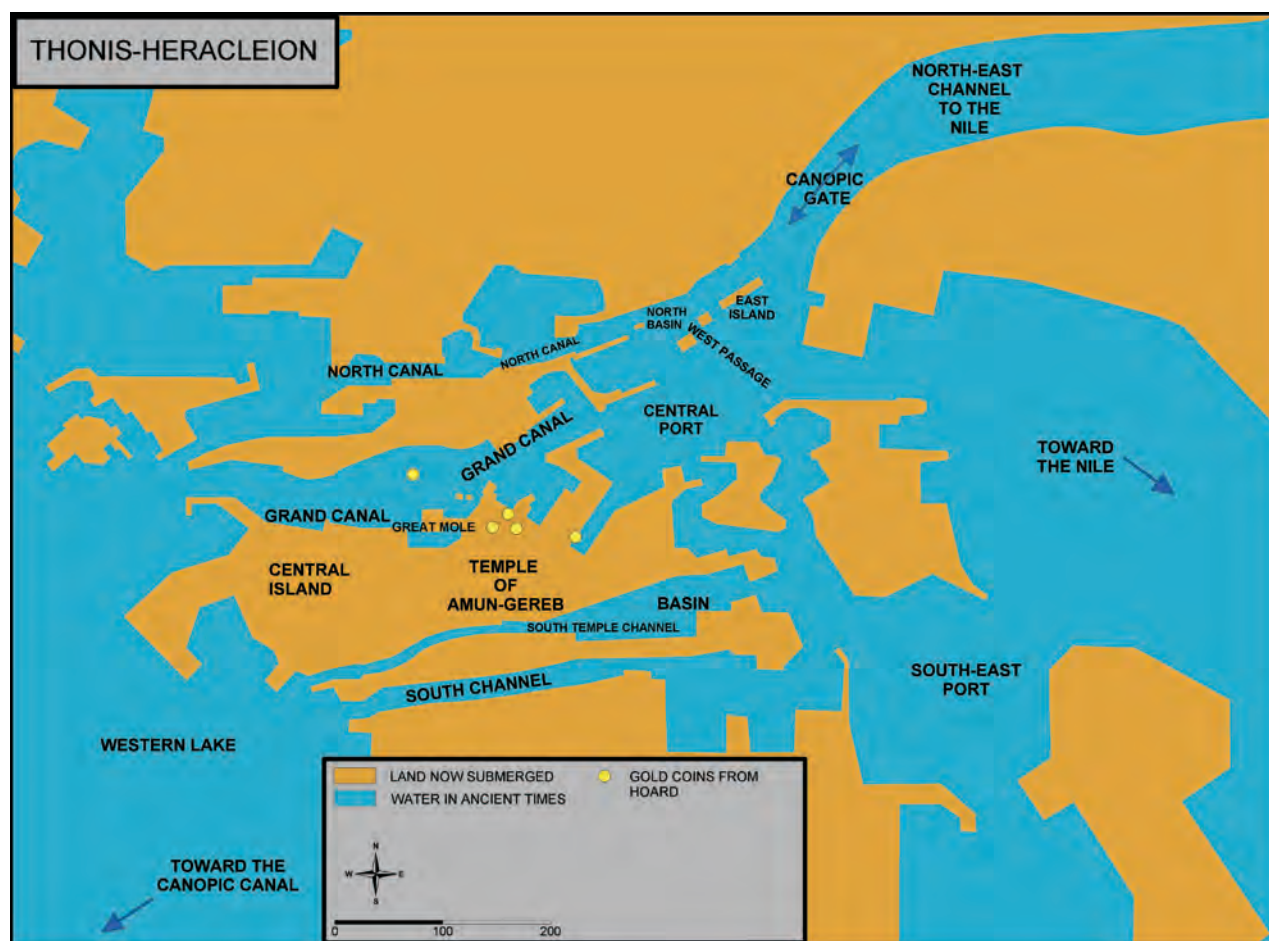


Figure 6.1 Find spots of the five coins from the 2004 gold hoard. (Base map: © F. Goddio/IEASM.)

temple area. A map of their distribution thus reveals not a single find, but rather a scatter (Figure 6.1). This is, at first sight, alarming: the hoard has become dispersed within the mobile layer of sediment. But it is at least clear that they seem to cluster around an original point of deposit, probably within the precinct of the main sanctuary of Khonsu-Herakles (H1),³ and have not been carried from one side of the site to another. During a decade of prior and subsequent survey and excavation work no further specimen of this type has been found. This suggests that we should be aware that while coins do move within this sediment, their movement may be limited, and that it is, therefore, worthwhile examining the distribution of coins from this layer for general patterns of deposit. Returning to the hoard itself, the deposit date of this hoard is c. 295–285 BC, within the reign of Ptolemy I, and as such falls comparatively early within the chronological spectrum of coin finds from the site.

The second hoard that I have been able to examine is that discovered in excavation during the 2010 season.⁴ This is a hoard of exceptional importance in a number of respects. It has, for a start, yielded a denomination

not previously recognised, and as such has contributed to a re-evaluation of the structure and development of Ptolemaic bronze coinage of the 170s–160s by Lorber and Faucher.⁵ More importantly, it is datable to some point between c. 170 and 163 BC, and contains only coins of one particular subgroup of coinage (Series 6e), which falls at the end of a period of relatively frequent change in the coinage. All the coins are in fresh condition. The hoard does not have the feel of a savings deposit, but rather that of a group of coins taken out of circulation at one time.

This, of course, is just one hoard, and should not be over-interpreted. However, this date of closure in around the early to mid-160s BC finds an interesting parallel in the individual finds from Thonis-Heracleion. This combined evidence, as we shall see, may suggest a break in monetary activity at Thonis-Heracleion in the early to mid-160s BC.

That said, the third hoard (EH 1. 235) immediately compromises that conclusion. Found in 2006, it consists of some 50 bronze coins of apparently identical type, with Zeus Ammon on the obverse and two eagles on the reverse.⁶ It has not yet been possible to weigh and

3 On the topography nature and finds from this area, see Goddio 2007: 75–100.

4 EH 1.203. The hoard will be fully published by Meadows and Fabre (forthcoming).

5 Lorber and Faucher 2009. Cf. also Picard and Faucher 2012: 60–76.

6 H9458, SCA 1099. For pictures of the group see Goddio and Fabre 2008: 353 no. 438 and Hawass and Goddio 2010: 104.

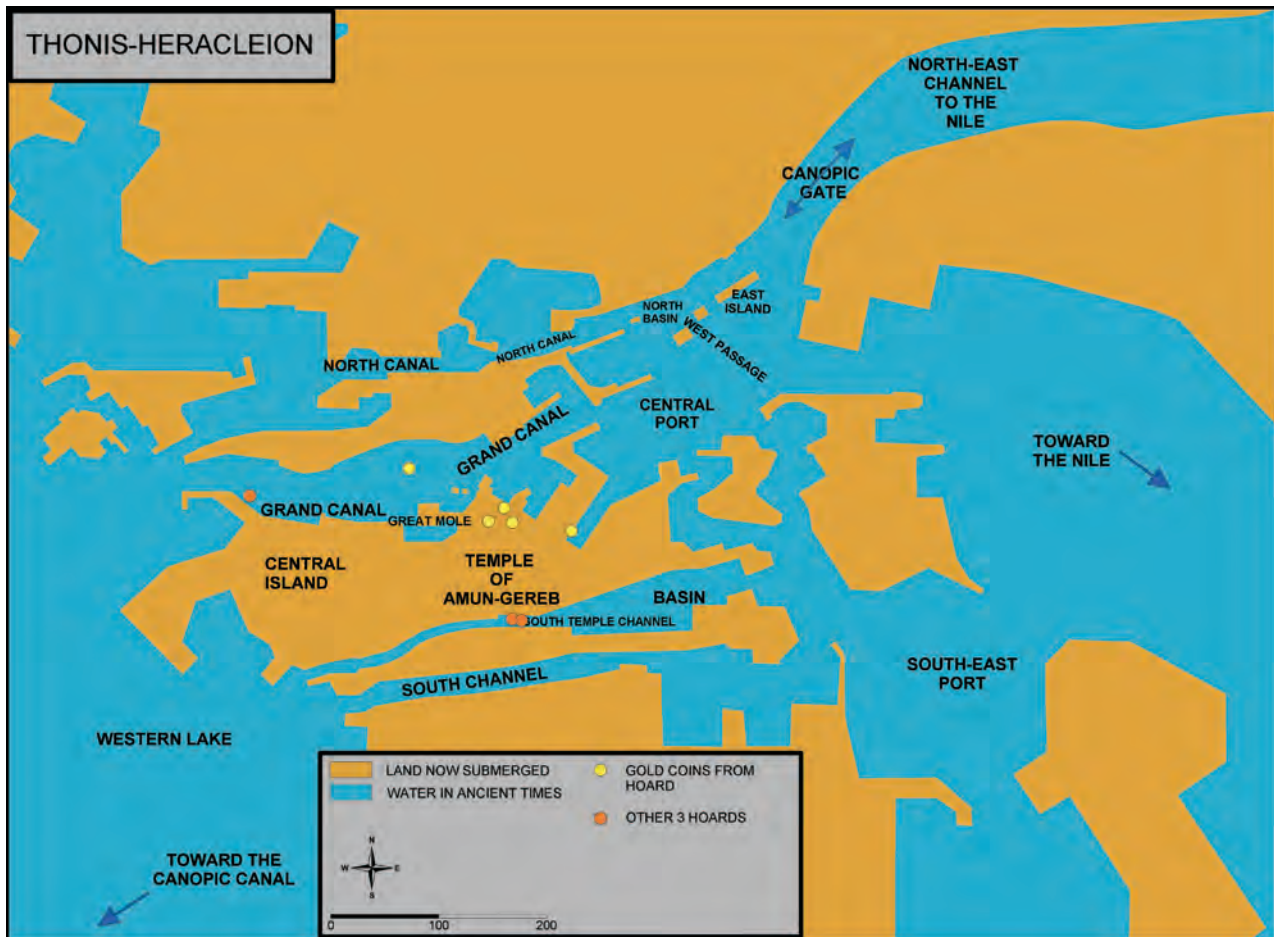


Figure 6.2 All four Thonis-Heracleion hoards. (Base map: © F. Goddio/IEASM.)

measure the coins in question since they have been constantly on exhibition since their conservation. However, from photographs it appears that these are coins of Series 9 struck between c. 113 and 44 BC. This hoard is a late outlier, not only among the hoards, but also in the context of the coin finds as a whole. These second and third hoards were found, almost certainly in their original place of deposit, in close proximity to each other, at the southern edge of the island containing the main temenos compound (H1) (Figure 6.2).

The fourth hoard (EH 1. 198) has also been unavailable for study thus far.⁷ From cursory examination while on exhibition, and from the photograph published in the exhibition catalogues, it appears that these coins are Ptolemaic bronzes of relatively large module and therefore belong chronologically somewhere between Hoards 1 and 2. No more can be said at present. This hoard was discovered at the western end of the Grand Canal (Figure 6.2).⁸

Single finds

Hoards provide some highlights, but the real picture of coin deposition at Thonis-Heracleion comes only from looking at the individual finds. As noted above, I have

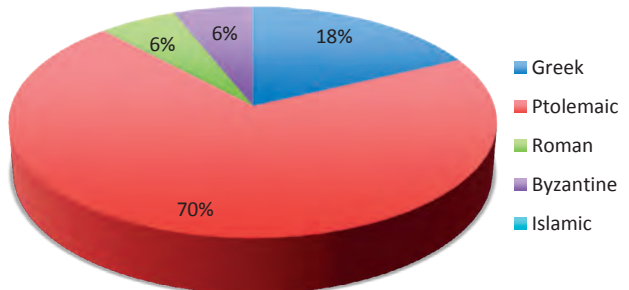


Figure 6.3 Individual finds from Thonis-Heracleion by period.

thus far been able to examine approximately 2,200 coins, of which a little more than 1,400 have proved to be identifiable to some degree. The pattern of representation at the site is quite startling for an Egyptian site (Figure 6.3).

One might have expected the Roman and Byzantine Periods to dominate the finds as they do at other sites (see further below for comparisons). However, at Thonis-Heracleion, 70 per cent of all identifiable coins are Ptolemaic, 18 per cent are pre-Ptolemaic Greek, while the Byzantine and Roman Periods are represented by just 6 per cent each.

We can break this down further. Starting with the earliest coins, the pattern here is no less surprising (Figure 6.4).

⁷ H6413, SCA 937. For photos see Goddio and Fabre 2008: 354 no. 445 and Hawass and Goddio 2010: 57.

⁸ On the nature of this central waterway see Goddio 2007: 102–11.

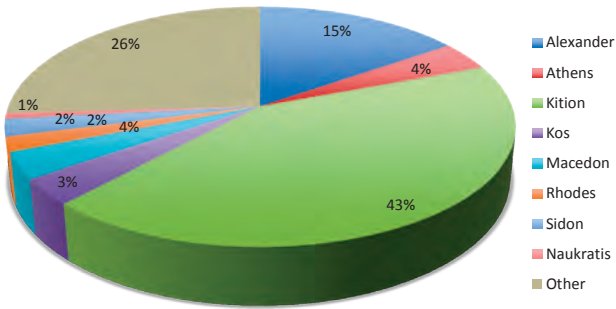


Figure 6.4 Pre-Ptolemaic coin finds by region of origin.

The finds are dominated by one type, a bronze coinage traditionally attributed to the Cypriot city of Kition, representing 43 per cent of the pre-Ptolemaic finds from the city. I shall discuss this in detail below. For the rest, the pattern is reasonably predictable in geographic terms. The coasts of southern and western Asia Minor are well represented, as are Macedonian issues, which are in turn dominated by issues of Alexander the Great, and presumably arrived with the king or soon after him in Egypt. In fact, a significant proportion of the coinage of this early period seems to belong to the latter part of the fourth century. This includes the issues of Rhodes, Kos and Sidon. And two of the star finds from this period, gold hemistaters of Pumiathon of Kition and Pixodarus of Caria were also struck in the period 350–330 BC.⁹ Only the silver tetradrachms of Athens, of which seven have so far been identified, could plausibly be earlier, though not by much.¹⁰

The Roman Period also seems to yield a rather bizarre collection of material (Figure 6.5). There is almost nothing of the first century AD, a peak under Hadrian (AD 117–138) and Antoninus Pius (AD 138–161) and then all but nothing from the later second and third centuries AD. The sample is, of course, very small. The lack of late third and fourth century small bronzes may be a result of their having dissolved beyond recognition due to their thin fabric. But the near complete absence of Alexandrian tetradrachm coinage is quite remarkable.

The Byzantine coinage, predictably, consists entirely of local bronze *dodecanummi*, normally in such atrocious condition that they are identifiable only by their fabric and the faintest of preserved designs or inscriptions.

The vast majority (70 per cent) of identifiable coins date from the Ptolemaic Period. Before beginning to describe the distribution of these, it will be as well to provide a brief introduction to how Ptolemaic coinage is now catalogued, for this is a fast-moving, and still fluid area of scholarship, which has, in fact, undergone rapid transformation even in the short period during which I have been working on the Thonis-Heracleion material. Ptolemaic silver coinage presents few problems of cataloguing. The general lines have been clear for a generation, and it is possible to assign the vast majority of coins to an individual reign, and some are even dated to

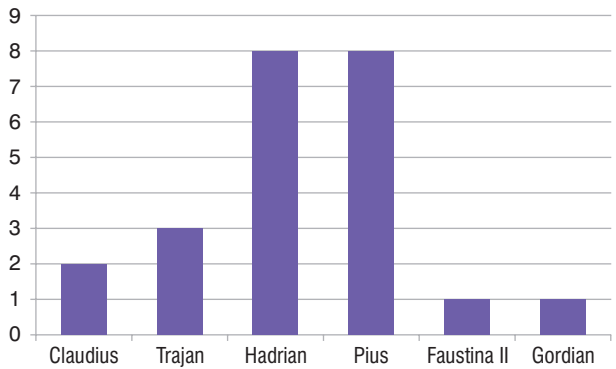


Figure 6.5 Roman coins from Thonis-Heracleion by reign.

specific years. That said, there is very little silver coinage from the Thonis-Heracleion excavations. The overwhelming majority of the coin finds are bronze, and here the categorisation is far more difficult. Older handbooks and catalogues attempt the attribution of all bronze to individual reigns. However, it has become increasingly clear that such categorisation is not always possible. On the one hand, certain typological series were produced seamlessly and with no visible change over multiple reigns. On the other hand, several major reforms of the coinage occurred in the middle of reigns. Recent work by Lorber, Faucher and Picard has established 10 basic series of Ptolemaic bronze, which are summarised in Table 6.1.¹¹

In Series 1 and 2, Ptolemaic coinage is still essentially a Greek or Macedonian coinage, with small modules and denominations. However, the transition from Series 2 to 3 around 261 BC saw a significant development in the size of the denominations in use, as well in the denominational structure. Coins of Series 1 and 2 tend to be easy to distinguish from later issues, even when not fully legible, just from their size and fabric. By the same token, issues of heavy bronze of the subsequent Series 4, 5, 6 and 7 are easy to distinguish by their size, but also by the appearance of a central depression in the coin, which is absent on earlier issues. However, the denominational complexity of Series 3–7 renders them difficult to distinguish from each other when in a poor state of preservation (as

Table 6.1 The Ptolemaic Bronze coin series as defined in Picard and Faucher 2012.

Series	No. of Denominations	Reigns	Approx. Dates
1	2	Ptolemy 1	315–301 BC
2	4	Ptolemy 1 and 2	301–261 BC
3	6	Ptolemy 2 and 3	261–240 BC
4	7	Ptolemy 3 and 4	240–220 BC
5	8	Ptolemy. 4 and 5	220–197 BC
6	8	Ptolemy 5 and 6	197–163 BC
7	6	Ptolemy 6 and 8, Cleopatra 2	163–115 BC
8	2	Ptolemy 9	115–113 BC
9	2	Ptolemy 10–14	113–44 BC
10	2	Cleopatra 7	44–30 BC

⁹ Pumiathon: H1490, SCA 287; Pixodarus: H10717.

¹⁰ For examples, see Goddio and Fabre 2008: 224 nos 367, 435–6.

¹¹ For a full overview, see now Picard and Faucher 2012, with previous bibliography.

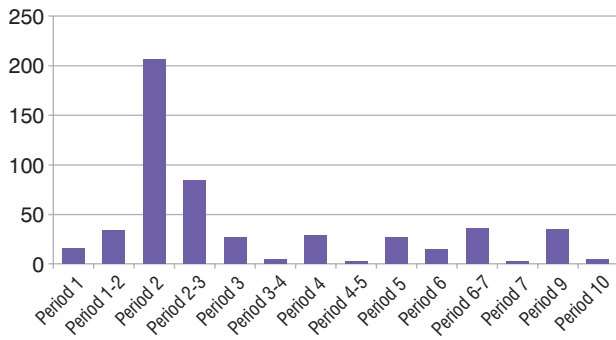


Figure 6.6 Distribution of Ptolemaic bronze finds by Series.

most coins from Thonis-Heracleion are). Diameter and iconographic features often make it possible to narrow down a coin to an individual series even when the coins are in very poor condition. Another major change took place with the advent of the long-lived Series 9. The physical size of the coinage dramatically reduced, as did the denominational structure. Such coins are relatively easy to identify, as in the case of the 2005 hoard (EH 1.235) that we have considered above.

The distribution of the Thonis-Heracleion Ptolemaic bronze finds by series (including coins which cannot certainly be attributed to one series) may be seen in Figure 6.6.

A slightly simplified version of this chart, where uncertain coins are equally distributed over the series to which they might possibly belong, and where dates are substituted for series on the x-axis is provided as Figure 6.7.

Such bar charts are extremely difficult to interpret by themselves. A major problem lies, for example, in the fact that we do not have reliable estimates for the original sizes of the coinages. We cannot say, therefore, to what extent this obviously uneven distribution is the result of uneven numbers of original coins. Nor can we say with confidence how long some of these coinages remained in circulation. For example, although there is clear evidence for a reform of the coinage in c. 261 BC, which expanded the denominational structure and introduced heavy coinage, there was some typological continuity between the two most common denominations of Series 2, which may have allowed them to continue to circulate alongside Series 3 after the reform. We may, to a certain extent, mitigate the inscrutability by examining the pattern of find distribution at other sites in the region, and this avenue will be approached below.

But, as noted above, the Thonis-Heracleion excavations offer us a unique opportunity not just to quantify finds, but also to draw distribution maps of the finds 'on the ground'. These, in fact, tell a fascinating story.

In Figure 6.8 are plotted the finds of pre-Ptolemaic Greek coins. It is clear from this that there is a strong concentration of finds in the area around the Great Mole on the Grand Canal (H4),¹² with a scattering outwards

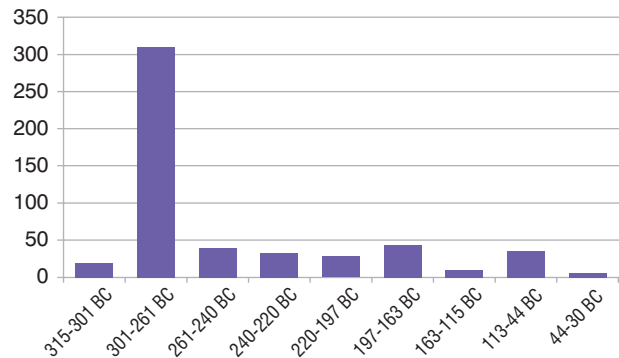


Figure 6.7 Simplified distribution of Ptolemaic bronze finds by date range.

which may indicate deposit over a slightly more extended area, but could also, as we have seen, be the result of drift in the sediment layer outwards from a highly localised point at the centre. A second strong area of concentration can be seen in the northern zone of the city. Here we can be more confident that we are looking at genuine concentration of finds, since these coins derive from the excavation of a series of buildings constructed from limestone blocks, which also yielded statuettes, amulets and jewellery (G1).¹³ Interestingly, the pattern of finds of silver coins of Athens and Aegina seems to be different from that of the bronze coinage, with a broad scatter towards the western part of the site. Numbers are small however, and caution is required in the evaluation of the significance of this pattern.

The finds of early Ptolemaic coins of Series 1 (c. 315–301 BC: Figure 6.9) are few in number, but seem to follow the pattern of the pre-Ptolemaic finds. They are confined to the area of the Great Mole and the temenos of Khonsu-Herakles (H4 and H1).

Series 2 (c. 301–261 BC), which is by far the best represented of all Series on the site, shows a marked difference in distribution compared to earlier finds (Figure 6.10). There is still a concentration around the Great Mole, but there is an increased presence to the south, east and west of this, suggesting greater distribution of coinage across the Central Island. Gone, however, are the concentrations in the western area of the site, as well as that in the north. Judging only from the coin finds, one might be tempted to talk of a contraction of monetary activity in the early Ptolemaic Period to the area around the Temple of Khonsu-Herakles.

However, there are small signs of activity in the northern and northeastern parts of the site, and this intensifies slightly when we overlay the finds of Series 3–5 (c. 261–197 BC) over those of Series 1–2, thus taking us down to the end of the third century BC (Figure 6.11).

A similar effect is produced by adding the finds of the earlier part of the second century, consisting of

¹² On the nature of this feature, see Goddio 2007: 101–2. Also see Goddio this volume Chapter 1 and Heinz this volume Chapter 2 for a discussion of the possible function of this area and also

Grataloup this volume Chapter 7 for the ceramic evidence for this part of the site.

¹³ See Goddio 2007: 119–20 with fig. 3.93.

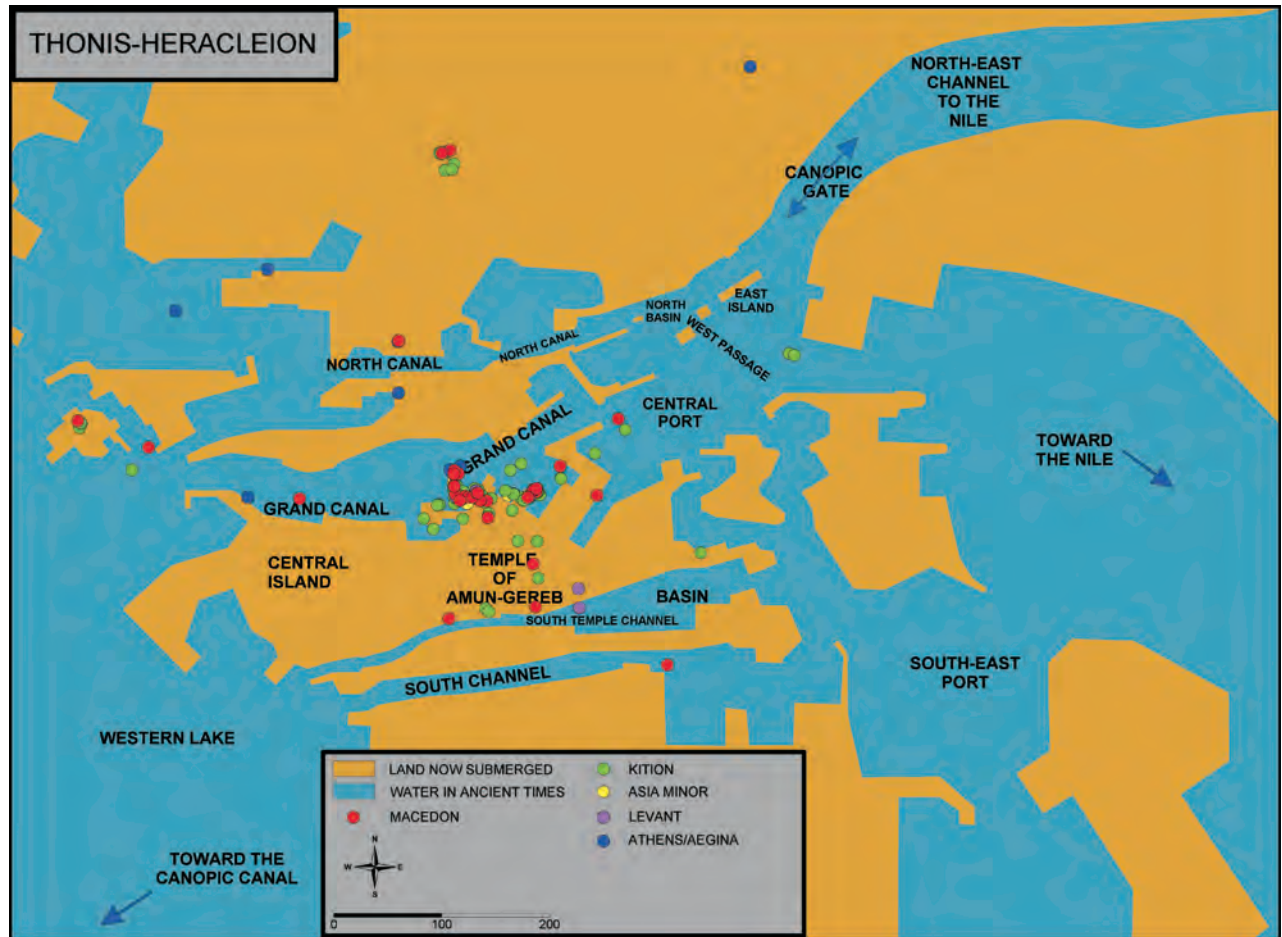


Figure 6.8 Distribution of pre-Ptolemaic coin finds. (Base map: © F. Goddio/IEASM.)

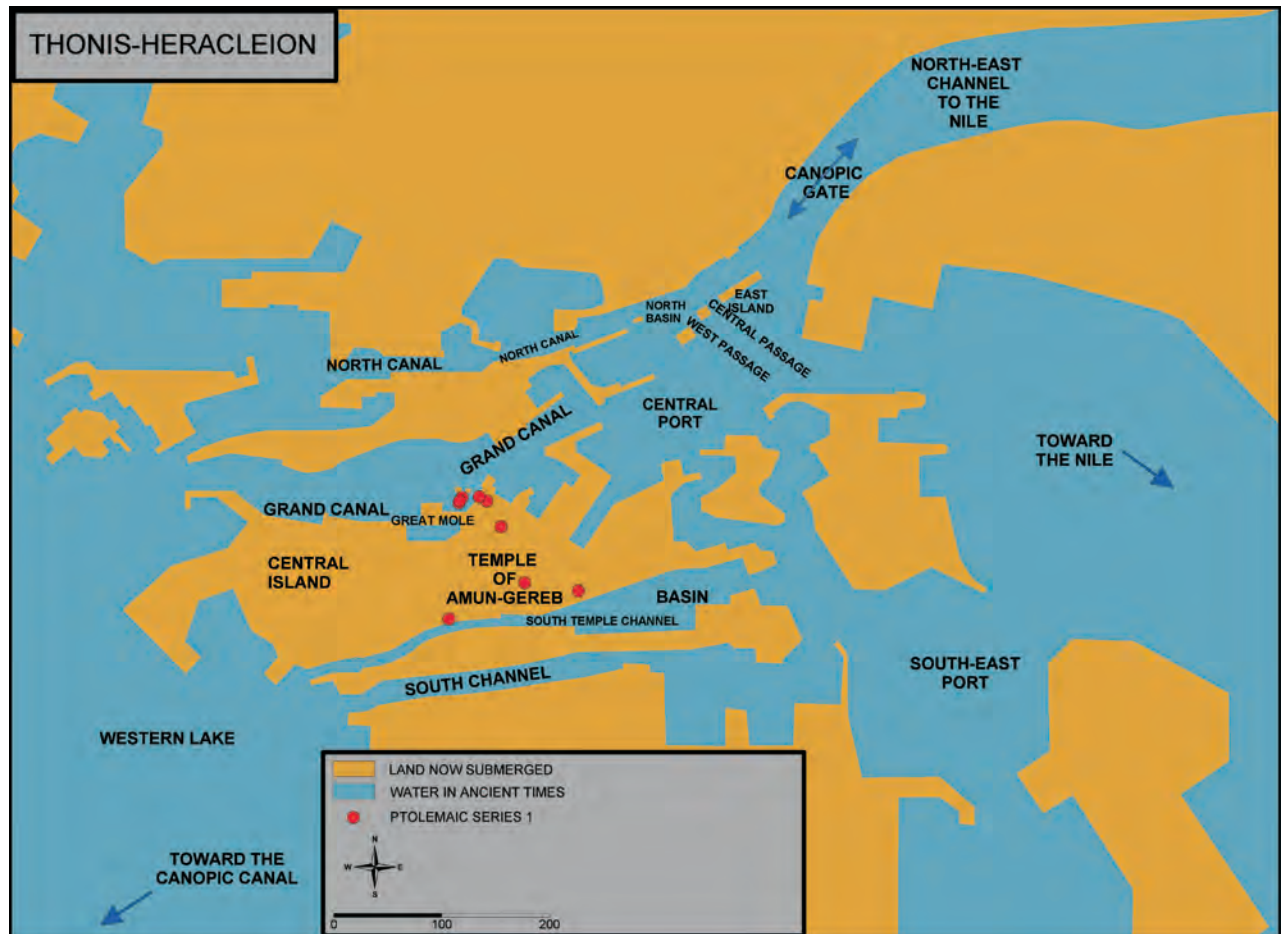


Figure 6.9 Distribution of Ptolemaic finds of Series 1 (c. 315–301 BC). (Base map: © F. Goddio/IEASM.)

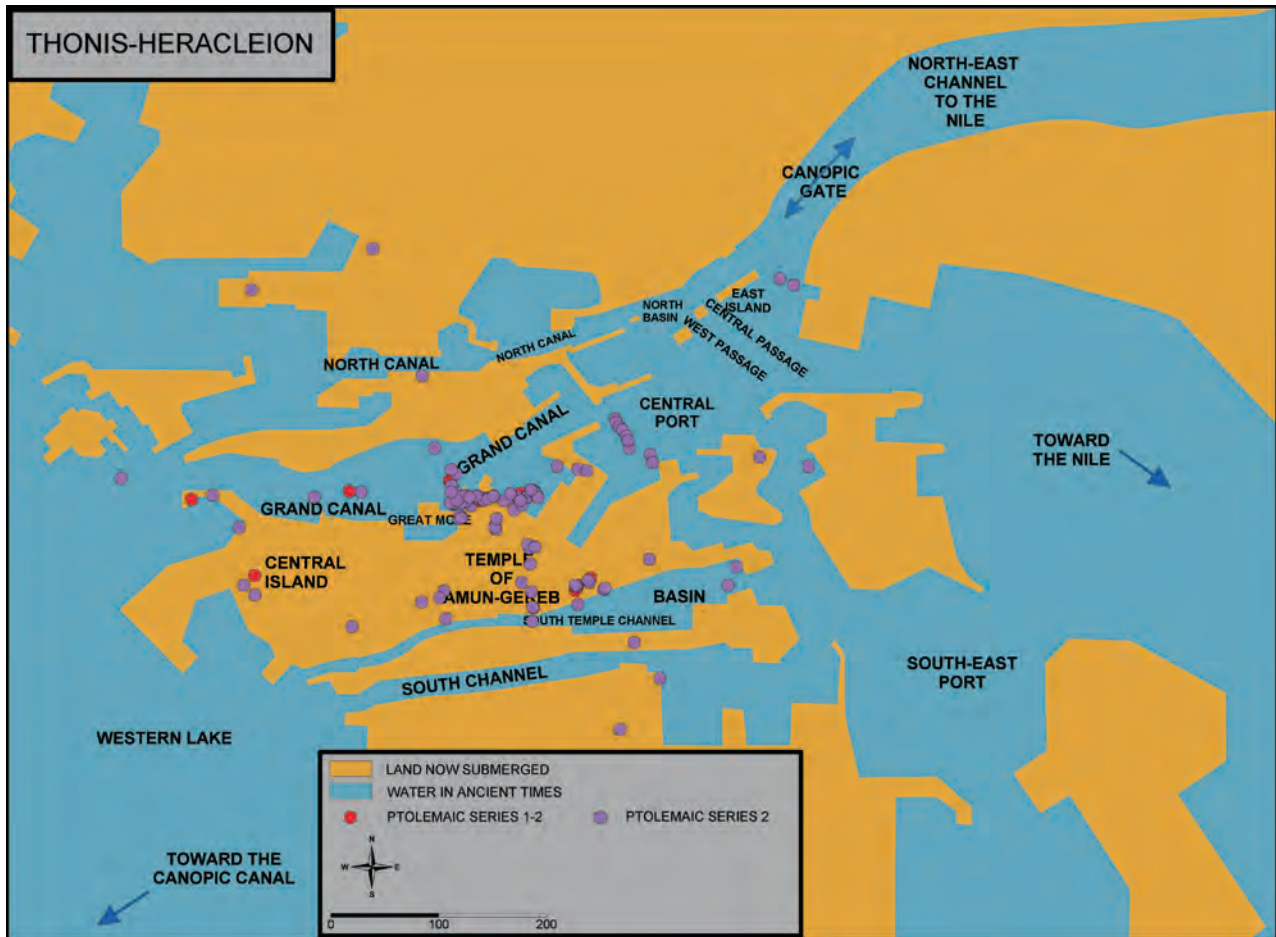


Figure 6.10 Distribution of Ptolemaic finds of Series 2 (c. 301–261 BC). (Base map: © F. Goddio/IEASM.)



Figure 6.11 Distribution of Ptolemaic finds of Series 1–5 (c. 315–197 BC). (Base map: © F. Goddio/IEASM.)

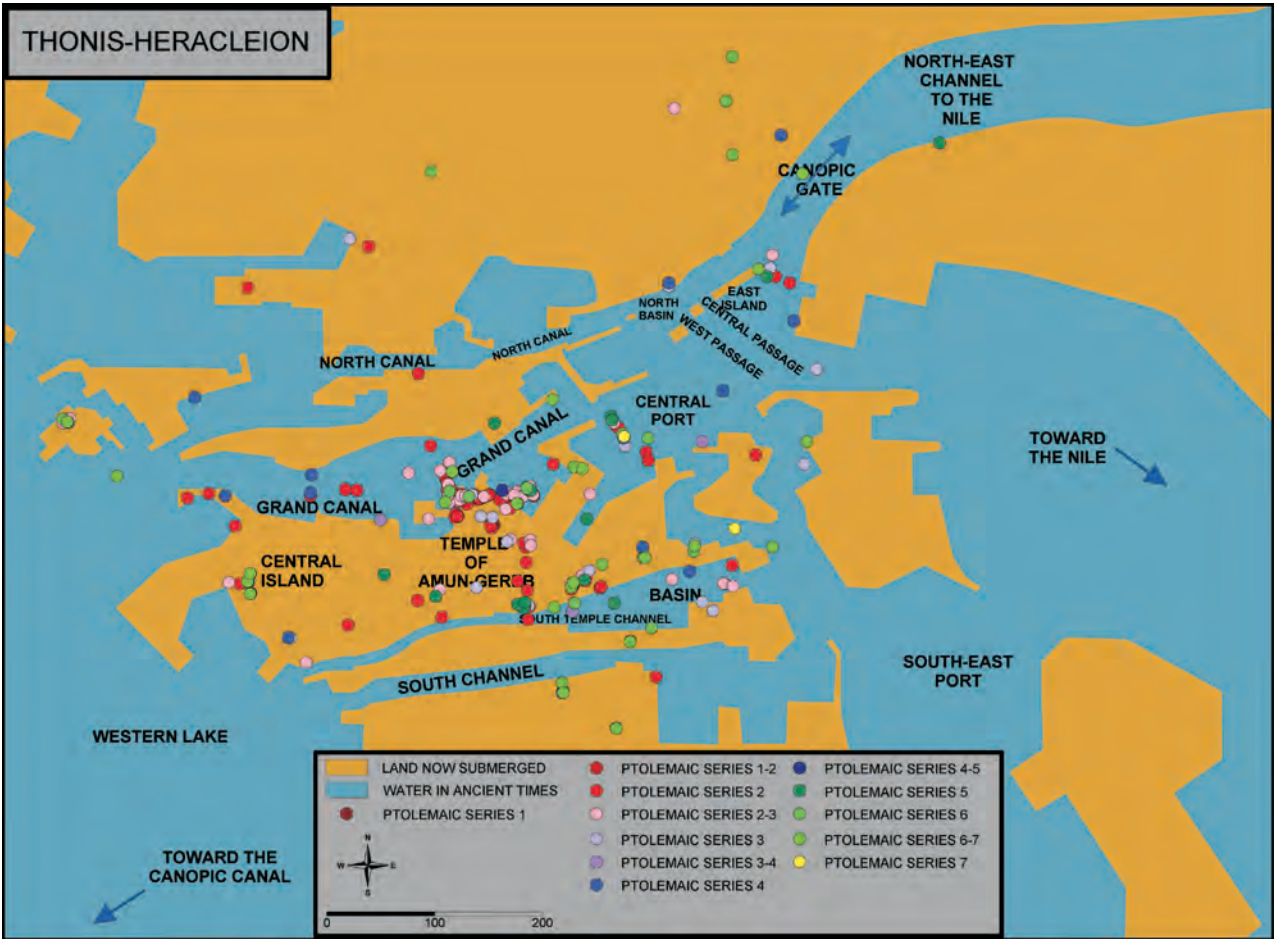


Figure 6.12 Distribution of Ptolemaic finds of Series 1-7 (c. 315-115 BC). (Base map: © F. Goddio/IEASM.)

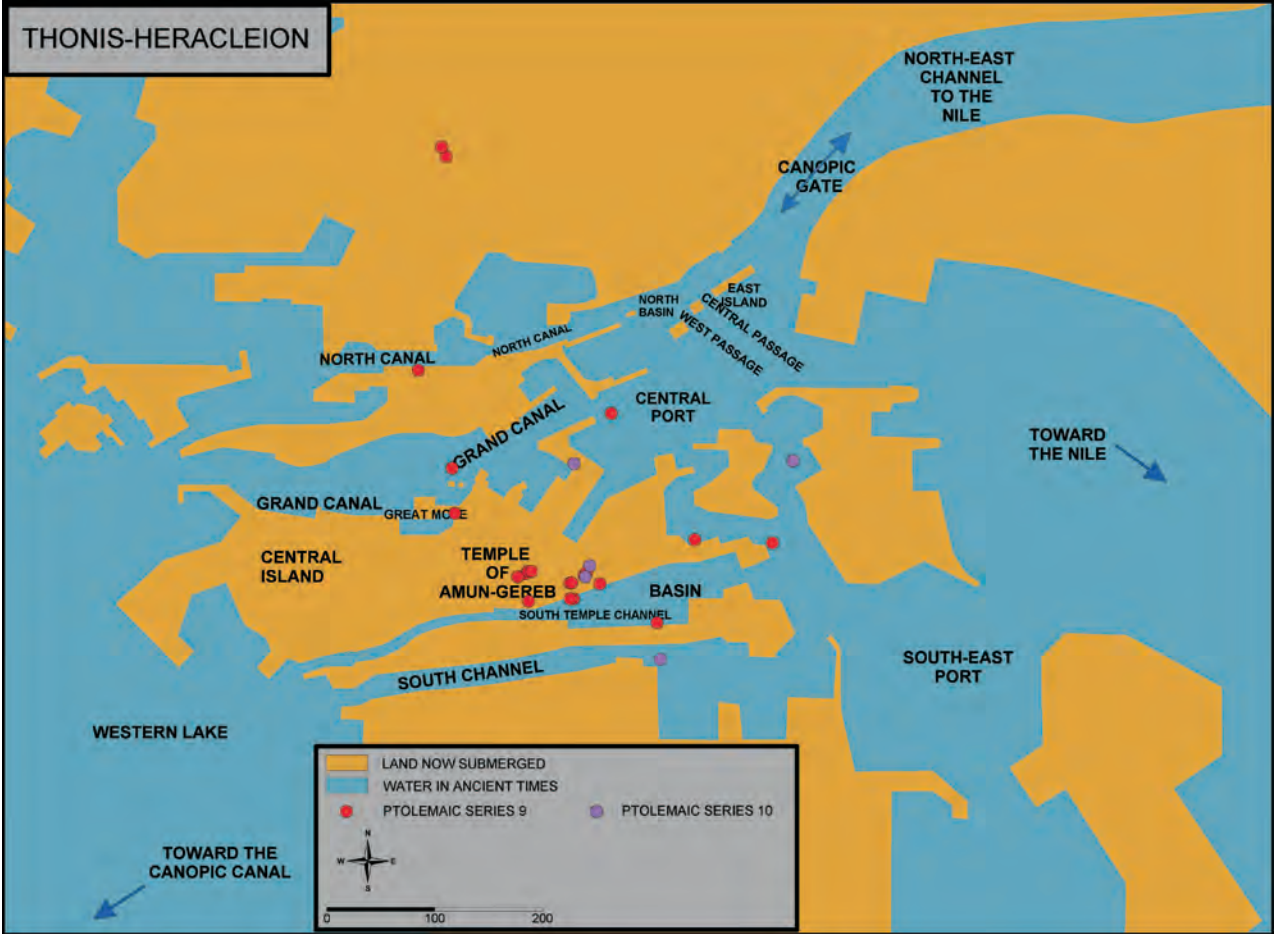


Figure 6.13 Distribution of Ptolemaic finds of Series 9-10 (c. 113-30 BC). (Base map: © F. Goddio/IEASM.)

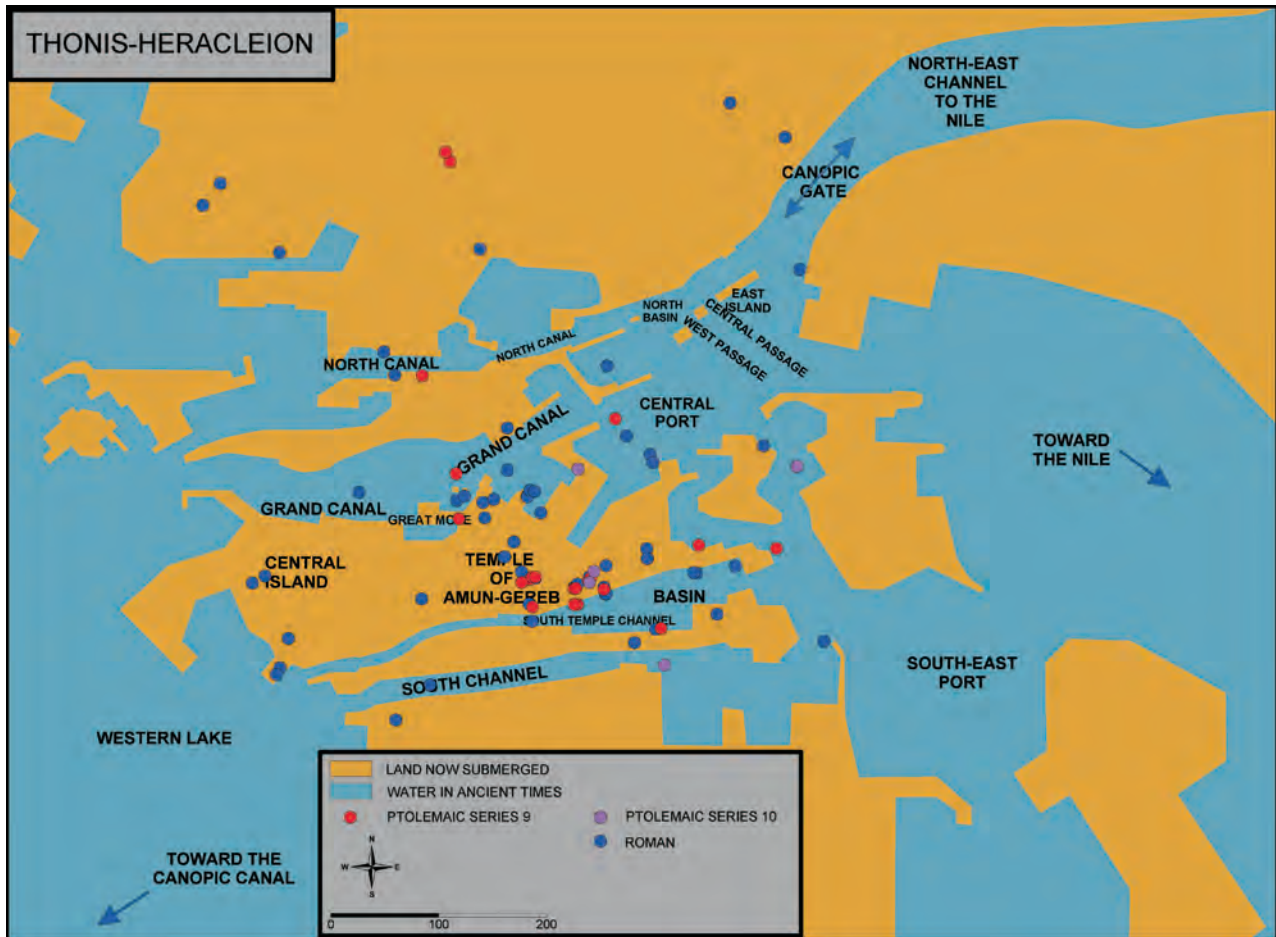


Figure 6.14 Distribution of Ptolemaic finds of Series 9–10 and Roman finds. (Base map: © F. Goddio/IEASM.)

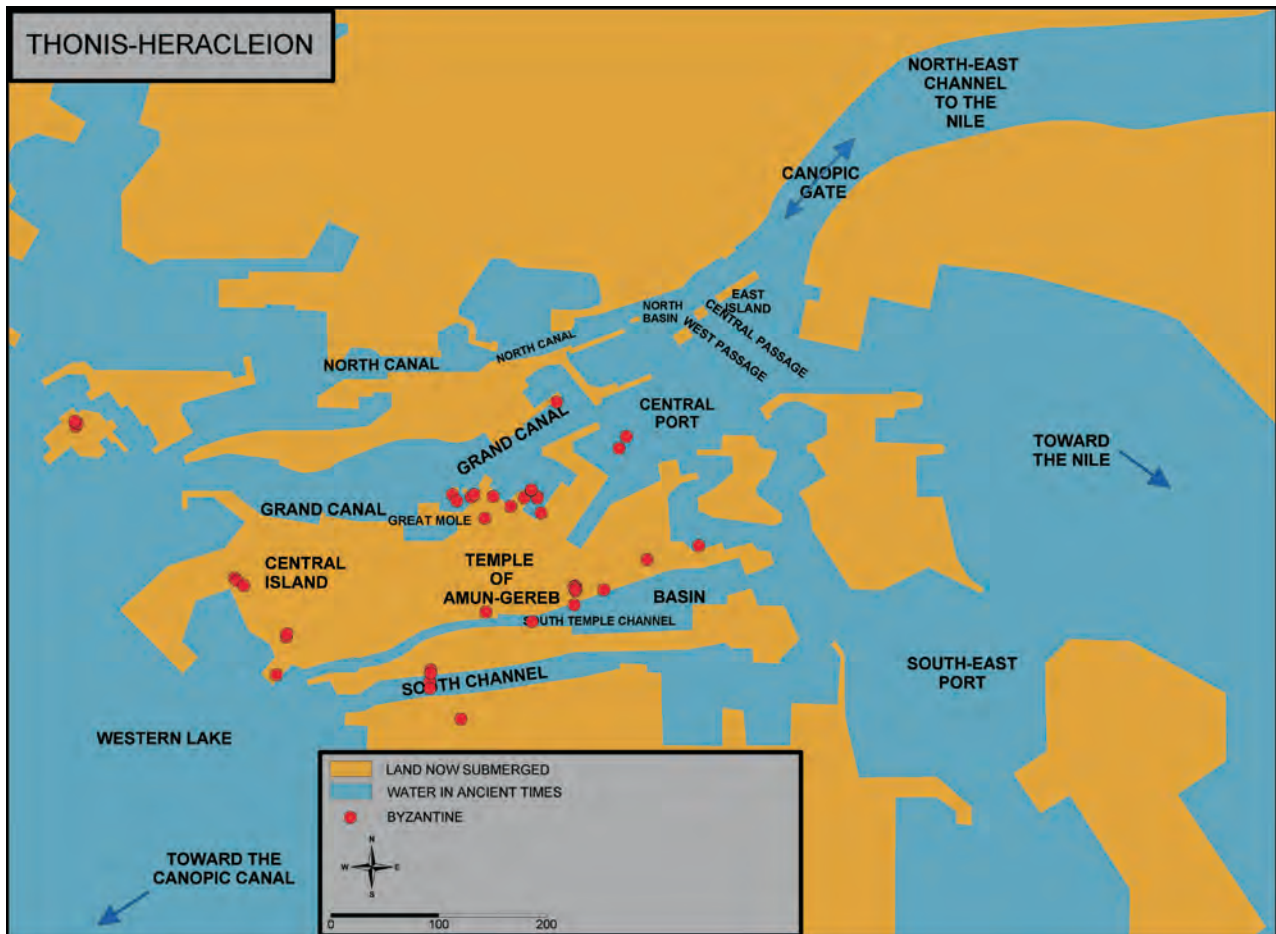


Figure 6.15 Distribution of Byzantine finds. (Base map: © F. Goddio/IEASM.)

Series 6 and a very small number of coins of Series 7 (c. 197–115 BC: Figure 6.12).

However, when we plot the finds of coins from the late second century to the end of Ptolemaic rule, we see a remarkable change in pattern (Figure 6.13). Circulation, or at least deposit, seems once more to have contracted to the area around the central temenos, with just a handful of outliers.

The evidence from the distribution of coins suggests, therefore, that at some point in the middle of the second century, a dramatic change occurred in monetary activity at the city of Thonis-Heracleion. Precisely when this may have happened is not easy to say. For although the distribution of coins of Series 7 might suggest that it was only after the beginning of that Series, in fact virtually no coins of Series 7 have been identified among the finds (see Figures 6.6–7). Thus, it is perfectly possible that the change occurred early within the period covered by Series 7, or even late within Series 6. If the latter were the case, this would make the transition contemporary with the burial of one of the known hoards from the site (*EH* 1.203), and perhaps suggest a date in the 160s BC.¹⁴

As Figure 6.14 shows, this contraction was perhaps only temporary. For although the numbers of coins dating from the Roman Period are not large, the distribution of those coins is again spread all over the site. This pattern changes dramatically again in the Byzantine Period, when the finds of coins are once more largely confined to the area around the Great Mole, and other areas of the Central Island (Figure 6.15).

Thonis-Heracleion in context

On the one hand, the evidence of the coin finds from Thonis-Heracleion, particularly given our ability to map it in such detail, provides us with a satisfying ability to chart the ebb and flow of coinage across the topography of the city from the late fourth century BC to the seventh century AD. But its ability to inform us about the specific history of Thonis-Heracleion is limited by our ability to contextualise this pattern. For example, we have observed a clear pattern of a wealth of finds for the Ptolemaic bronzes of Series 2, and an apparent dramatic change in behaviour around the border between Series 6 and 7. We have noted too a comparative dearth of coinage of the imperial period. But are these oddities specific to Thonis-Heracleion itself? Or are these simply

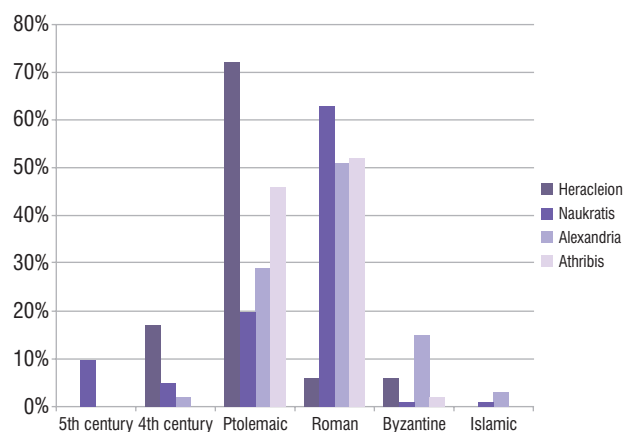


Figure 6.16 Comparison of sites by broad period.

characteristics of monetary behaviour across the Delta and Alexandria?

The only way to test the exceptionality or normality of Thonis-Heracleion is to try to compare its profile with those of other sites. In this respect we are fortunate in that the last four years have seen the publication of important excavation finds from Alexandria itself, and from the site of Tell Atrib (Athribis) in the Delta to the south of Thonis-Heracleion.¹⁵ To these we may also add the coins from Flinders Petrie's excavations at Naukratis in 1884–5.¹⁶

We may begin with Figure 6.16, which compares the four sites in terms of periods represented among the coin finds. A number of curiosities stand out. Beginning with the fifth century BC, it comes as no particular surprise to find that a significant proportion of the finds from Naukratis belong to this period, nor that it is not represented at Alexandria, which was founded only at the end of the fourth century.¹⁷ However, given what we know of the tight economic links between Thonis-Heracleion and Naukratis, now stunningly confirmed for the early fourth century BC in the publication of the version of the Saïs Decree from Thonis-Heracleion¹⁸ it seems extraordinary that Thonis-Heracleion should not be demonstrating a similar pattern. The absence of fifth-century coinage from Thonis-Heracleion seems unlikely to be by chance. The site has yielded pottery from this period, and earlier, particularly in the northern part of the site.¹⁹ Another possible reason for absence of fifth-century material at Thonis-Heracleion might seem to be the fact that the majority of coin finds from the site (as they are from all archaeological sites) are of bronze, and that there exists

¹⁴ For further discussion of the date and possible context of this hoard, see Meadows and Fabre (forthcoming).

¹⁵ Alexandria: Picard et al. 2012 (3,529 coins). Athribis: Krzyżanowska and Myśliwiec 2009 (1,682 coins).

¹⁶ The Naukratis coins (740 in total) were published twice by Head: 1886a and 1886b. These finds are not without their methodological difficulties: for the circumstances, see Möller 2000: 90.

¹⁷ The absence of fifth century material from the excavations at Athribis should be set alongside the hoard evidence. An important hoard of apparently more than 77 silver coins was said to

have been unearthed at the site in 1929, and passed in to commerce (*IGCH* 1640). The contents that were recorded suggest burial in the first quarter of the fifth century BC.

¹⁸ von Bomhard 2012.

¹⁹ See Grataloup 2010, noticing, for example, the presence of ceramics of the sixth-fifth centuries BC in her Area B, in the central area to the north of the grand canal, and of fifth-fourth-century material in her Area C, along the northern side of the North-East passage into Thonis-Heracleion; see also this volume Chapter 7.

no fifth-century bronze coinage. However it should be noted that eighteen fourth-century silver coins have been found at Thonis-Heracleion.²⁰ The absence of fifth-century coinage from Thonis-Heracleion thus remains a mystery, and it is tempting to suggest that the reason for the difference in this respect between Thonis-Heracleion and Naukratis may lie in the different statuses of the two settlements.

Turning to the fourth century, we see that for this period the pattern is reversed. Less than five per cent of the coin finds from Alexandria and Naukratis date to this period, and nothing is recorded for Athribis.²¹ By contrast, Thonis-Heracleion, as we have noted already, has a remarkably strong representation of fourth-century finds. However, it is important to note that these seem to date from the latter half of the century. Thonis-Heracleion is as barren of coinage of the first half of the fourth century as it is of the fifth.

The highly elevated percentage of Ptolemaic finds we find at Thonis-Heracleion is unique among the four sites. And the reason for this uniqueness is clear when we examine the pattern for the finds of the Roman Period. At Naukratis, the Ptolemaic and Roman finds account for around 80 per cent of all coin finds, and the same is true for Alexandria, while at Athribis the total is close to 90 per cent. For Thonis-Heracleion too, the total for these two periods is close to 80 per cent, but the vast majority of these are Ptolemaic finds. The very high percentage representation for the Ptolemaic Period is in fact a reflection not just of the ubiquity of Ptolemaic material, but also of the fact that the Roman Period is so poorly represented. It seems clear that this pattern must reflect a fundamental difference between the monetary history of Thonis-Heracleion and the other sites. This difference is observable, as we have seen in the distribution of finds on the site, which suggests a significant break in the pattern of circulation in the mid-second century BC.

There does, therefore, seem to be some correlation between the purely numerical pattern that emerges from the graph of coins by period, and the mapped distribution of the coins on the ground. This suggests to me a clear expansion of coinage across the city throughout the third century, and then a significant reining in of the use of coinage both in quantity and in physical location of its loss in the second half of the second century BC, and then throughout the first centuries BC and AD. Only towards the end of the latter century does coinage reappear in

moderate quantities on the site, and then predominantly under Hadrian and Pius.

Coin production in the Delta region

For the majority of Egyptian sites, and indeed sites elsewhere, one would not ordinarily consider the question of coin production. For many Greek cities it is self-evident that coins were produced at them since we have coins that proclaim their place of origin, but it is extremely rare that the archaeological record has left us with any trace of the physical production of those coins. Within Egypt, we have virtually no coins, certainly before the arrival of Alexander the Great, that unambiguously state their place of production.²² Even after the arrival of Alexander, matters are not straightforward. There has been considerable debate, for example, about the location of Alexander's original mint (Alexandria or Memphis),²³ and the location of a principal mint at Alexandria under the Ptolemies is largely a matter of likelihood and convention. Certainly the coins do not state their point of production, and indeed, as Lorber's forthcoming study of the early Ptolemaic silver will demonstrate, there is some reason to talk of branch or subsidiary mints.²⁴

But before the Ptolemaic Period there are only a handful of coinages that were unambiguously issued within Egypt. These are the 'civic' issues of Naukratis;²⁵ the coins in gold, conventionally, though not necessarily correctly, attributed to Nectanebo II,²⁶ and much rarer issues apparently signed by the rebel king Tachos;²⁷ the silver coins indisputably struck in the name of Artaxerxes III as pharaoh, and of his satraps in Egypt; and bronze struck by these same satraps.²⁸

However, two types of find from Thonis-Heracleion require us to consider the possibility of coin production within the city. The first of these is the coin die (Figure 6.17). This has been published fully elsewhere, so can be summarised here.²⁹

The Thonis-Heracleion die consists of an irregular cube of bronze, with dimensions of c. 30 × 30 × 33 mm, and weighing 233 g, on which are engraved on three sides obverse dies for imitations of Athenian tetradrachms. They are disposed upon the bronze in such way that each has on its opposite side a blank face. Presumably this feature was intended to avoid having to place any one of the dies face down while another die was being struck. The style of the dies seems most closely to approximate that found on the late Athenian imitations produced

20 Two coins of Naukratis; one of Aegina; seven of Athenian type; five Alexanders and three unidentified.

21 Again, however, this absence is filled at Athribis by the hoard evidence. A hoard of approximately 700 silver tetradrachms is said to have been discovered at the site in 1905 (*IGCH* 1663).

22 For a survey of the evidence, see Nicolet Pierre 2005.

23 For a recent discussion of the question, see Le Rider 2007: 197–200.

24 Lorber (forthcoming).

25 For bronze issues in the name of both the city (NAY) and, apparently, Alexander (AAE) see Head 1886b: 66–7. For silver with Athenian types and the legend NAY, see <http://numismatics.org/collection/1944.100.75458>.

26 Faucher et al. 2012.

27 Jenkins 1955: 150.

28 For the satrapal issues see Nicolet-Pierre 1979; for the royal issues, Mørkholm 1974; Price 1993.

29 Meadows 2011.



Figure 6.17 The bronze coin die from Thonis-Heracleion H9712. (Photo: C. Gerigk; © Franck Goddio/Hilti Foundation.)

by the Persian administration at the end of the fourth century. So on this basis, the die seems to belong to the last decades of Persian rule of Egypt.

Remarkably, although finds of ancient dies are extraordinarily rare, the Thonis-Heracleion die is not unique. Another such cuboid obverse die, once in the private collection of V. Adda of Alexandria and said to have been found in the Delta, has long been known, though now survives only in an electrotype copy in the British Museum. A reverse die appeared in commerce in association with a group of Athenian coins (*IGCH* 1663) and imitations said to have been found near ancient Athribis, and is now in the Numismatic Museum in Athens. Different in manufacture, but with a similar provenance, are two dies that were shown to George Hill at the British Museum, and said to have been found at Saïs. Altogether, then, we have five (or perhaps more accurately nine) dies for producing Athenian-type tetradrachms with provenances in the Egyptian Delta.³⁰

Such an assemblage of material is unknown from any other area of the Greek world. It strongly suggests that the coinage for which they were designed—imitations of Athenian tetradrachms of the fourth century BC—was in widespread production in the Delta, and quite possibly at Thonis-Heracleion.³¹ This proposition is seemingly confirmed by finds of Athenian tetradrachms from the site. I have recorded 7 specimens in 2,200 coins so far (0.32 per cent), which may sound unimpressive, but the American excavations at the Agora yielded just 23 fourth-century specimens from 14,000 finds (0.16 per cent).³² No other Egyptian site, to my knowledge, has yielded as many Athenian tetradrachms outside of hoards.

³⁰ Ibid. for a fuller discussion and illustration.

³¹ The extent to which this was the case has been a question of some debate among numismatists: see the summary, *ibid.*

³² Kroll and Walker 1993: 17–18 nos 15 (silver) and 16 (plated examples).

³³ The attribution was first made by Babelon 1893: nos 613–18: see Callot 1992: 297.

³⁴ Callot 1992: 298; cf. *eund.* 1993: 48.



Figure 6.18a–b Bronze coin of Kition type. From the collection of the American Numismatic Society 1944.100.58077 (E.T. Newell bequest ©ANS).

The other category of find which, to my mind, opens up the possibility of coin production at Thonis-Heracleion, is formed by a bronze coinage already mentioned above. Of the 255 Greek coins that are not Ptolemaic, no fewer than 109 (43 per cent) are of a single type (Figure 6.18). This has on the obverse a lion walking left on a dotted line with a ram's head in the field above, all within a dotted border; on the reverse is a horse walking left on a dotted line with a star of eight rays above, and a symbol of Tanit in the left field. In a number of the standard catalogues these coins are attributed to Evagoras II of Salamis.³³ In 1992, however, Callot pointed out that, whereas the excavations carried out at Salamis had not yielded a single specimen of this coinage, the several excavations carried out by Greek and French teams at the city of Kition had yielded no fewer than 25 such coins.³⁴ He thus felt justified in reviving an old attribution, that of Six, of these coins to the city of Kition.³⁵ Given that bronze coinage, in contrast to silver, tends to stay close to its place of production, Callot's reasoning cannot be faulted. And it can be further bolstered by the clear connection of these bronzes to the mint of Kition through the use of the Tanit symbol that appears on their reverse.³⁶

What then are we to make of the fact that more than four times as many of these coins have now turned up at the site of Thonis-Heracleion? We should begin by noting that the distribution of these coins across the site rules out the likelihood that we are dealing here with a single find that is skewing our perception (Figure 6.19).

Moreover, we may add to our evidence from Thonis-Heracleion the fact that four specimens of this coinage were discovered by Petrie at Naukratis among a total of 21 pre-Ptolemaic bronzes that Barclay Head was able to identify.³⁷ The sample is small, but this means that this type accounts for 20 per cent of the Greek bronze at Naukratis. Moreover, it now transpires that the CEA excavations at Alexandria have also brought to light a coin of this type (1 of just 57 identified pre-Ptolemaic bronzes).³⁸

³⁵ Six 1883.

³⁶ Callot 1993: 48–9; cf. Markou 2009: 14–16.

³⁷ Head 1886a: 12.

³⁸ Marcellesi 2012: 190 no. 1345. The coin is identified in the publication of the finds as a Siculo-Punic bronze. However, it is clear from examination of the piece that it is in fact a bronze of Kition. I am grateful to Jean-Yves Empereur and Olivier Picard for making it possible for me to see the coin in question.

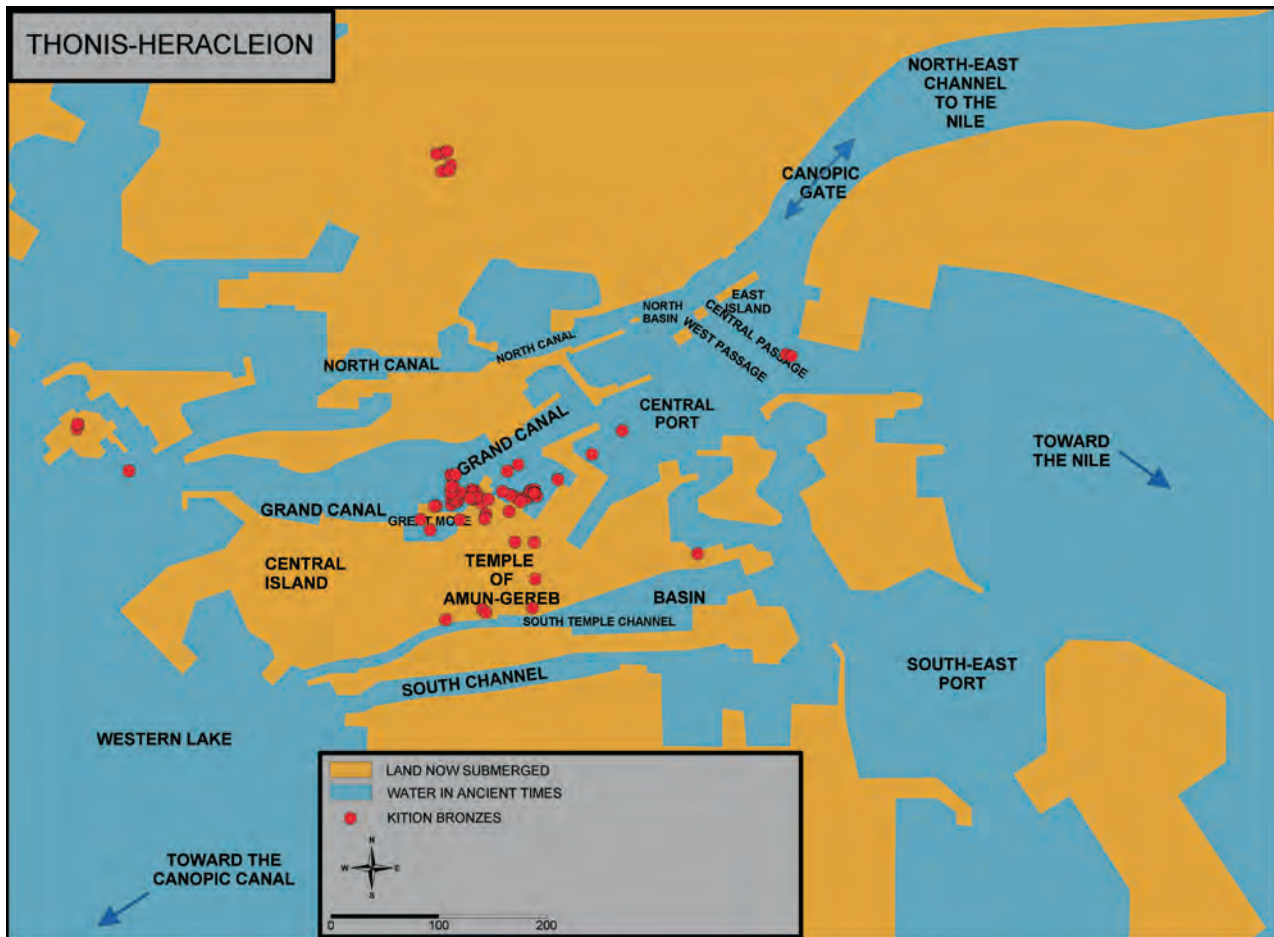


Figure 6.19 Distribution of 'Kition' bronzes. (Base map: © F. Goddio/IEASM.)

Even more extraordinarily, a coin of this type also turned up in the excavations of the Anubieion at Saqqara, where it was one of just five pre-Ptolemaic bronzes.³⁹

We are justified, it seems to me, in asking whether a 40 per cent representation at Thonis-Heracleion and 20 per cent representation at Naukratis, and a total of 115 Egyptian finds so far from four different sites, may suggest that this is not a Cypriot coinage at all, but rather a local product of the north-western Delta region. But if this is an Egyptian bronze coinage, how do we reconcile this with the affinity in design with the coinage of Kition and the excavation of this type in Cyprus too? Conceivably, the answer is to be found in an observation made by Six in the nineteenth century, and corroborated by Callot (I quote the latter):

There are also coins of exactly the same type but of much coarser manufacture like those that Six (1883) qualifies as being of 'fabrique rude' (p. 312), of which a number of examples figure among the excavation coins of V. Karageorghis. These coins, few in number, would be classified as irregular or 'barbarous' strikes if they did not occur in the same excavations as yet other examples, extremely rare, of even worse manufacture. These coins, still unpublished, will not be described in detail here. I will note only that

*they show on obverse and reverse quadrupeds that with much indulgence could be interpreted as the lion and the horse of the prototype. Are these also irregular strikes?*⁴⁰

If there are both genuine coins of the lion and horse type, and 'barbarous' imitations, is it possible that these imitations were being produced in Egypt, and may account for the high rate of discovery there? Imitation, as we have seen, was standard in the realm of silver coinage. Ideally, one would test this by conducting a stylistic analysis or die study of the finds from Thonis-Heracleion, but the condition of the coins sadly prohibits such an approach. There is one straw at which we can clutch. Callot notes of his finds from Kition-Bamboula: 'we can see a certain regularity in the adjustment of the dies since, of the 12 examples where it could be noted, they are oriented at 30°, 180° and 0°'. Although they are in poor condition, I have been able to note the die-axes for the Thonis-Heracleion specimens and can say that only 55 per cent of these conform to Callot's observation. There may be some reason to think with the finds from Thonis-Heracleion we are dealing, at least in part with an imitative coinage. The significant quantity of coins of this type found at Thonis-Heracleion and Naukratis may suggest that these were produced locally.

³⁹ Price 1988: 75 no. 636.

⁴⁰ Callot 1992: 298. He goes on to suggest that these poor quality

imitations were issued during the last gasp of Pumiathon's reign after the arrival of Alexander the Great.

Whether this hypothesis is correct or not, it remains the case we have large quantities of coins of 'Cypriot' types occurring in the NW Delta and in Cyprus. This strongly suggests that such coin was flowing freely from one place to the other. We should not allow our uncertainty about the precise agency behind the production of this coinage to obscure the importance of this phenomenon of circulation. It is quite remarkable for a bronze coinage of this sort to circulate over so broad an area, and may suggest a relatively tight monetary integration of the Delta and Cyprus in the third quarter of the fourth century. This pattern actually fits rather neatly with the suggestion recently made by Markou⁴¹ that the extensive and anomalous gold coinage of the fourth century Cypriot kings may have resulted from the import of gold from Egypt. In any event, the evidence from Thonis-Heracleion requires a radical revision of conclusions previously drawn for the lack of monetary interaction between Egypt and Cyprus.⁴²

Conclusion

The site finds from Thonis-Heracleion, though still only partially identified, offer rich possibilities for the tracing of the monetary activity of this important settlement. Preliminary results suggest that we may be able to chart a beginning of monetary activity not long before the arrival of Alexander the Great. This activity consisted of the use and perhaps even production of bronze coinage, and perhaps too the production of silver. Following the Ptolemaic conquest three major changes occurred. Production of coin at the city stopped; foreign coin ceased to enter the city; and large quantities of Ptolemaic coin, produced at nearby Alexandria, arrived across the entire site. Distribution maps suggest a spread of monetary activity outwards over time from the ritual centre of the site to outer areas of Thonis-Heracleion until some crisis event lead to a sudden contraction of monetary activity in the 160s BC. Thereafter, coinage is found in much smaller quantities, suggesting that, if the event of the 160s had led to depopulation, inhabitants did not return in the same numbers. The Roman Period saw reduced coin use over the whole of the site, before this use contracted again to the old ritual core of the site in the Byzantine Period. From the crisis of the 160s, if such there was, the city never fully recovered.

Acknowledgements

My thanks are due to Franck Goddio for the invitation to work on this exciting material, and to the Hilti Foundation for continued financial support for this work. I am also indebted to audiences in Oxford and Alexandria for their comments on earlier versions of this paper.

⁴¹ Markou 2011: 223–4, 303.

⁴² See Destrooper-Georgiades 1995, who was able to draw on a much smaller body of evidence.

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