

Negotiating Chronologies: Aegean Amphora Research, Thasian Chronology, and Pnyx III¹

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Chronology rarely involves only one type or class of artifact. An amphora might take its date from a coin found in the same stratum, but closer consideration might reveal the dependence of the coin's date on associated fineware pottery in some other context. That pottery might have been dated by associated stamped amphora handles, whose dates might depend on other coins. These other coins, in turn, might depend on a questionable interpretation of the historical sources. Or consider the dating of a single dumped fill of pottery. Some of the types present might span a 50-year period in our current understanding of their production and use; for the sake of illustration consider that to be 300-250 BC. The most common type found in the same deposit might be known to cease production and common use c. 290. In light of the frequent finds of the latter type and given the possibility of the former type being produced and used as early as 300, a closing date well before 250 and much closer to 290 would have to be considered as a strong possibility. Had those more narrowly datable types not been present, of course, a much later likely closing date might have been assigned, and previously undated artifact types from that deposit might be assigned similarly, perhaps erroneously, late dates.

These two hypothetical scenarios provide a background for my title. Creating chronologies involves negotiating a web of relationships between artifacts. Chronologies, too, depend on negotiation among various artifact classes, each with its own set of constraints. One could see such negotiations as hopelessly circular and subjective.² And yet a more satisfyingly objective approach (for example taking the latest *possible* date from the artifact types present in the second example above as the *terminus post quem* for the closing of the deposit) might not be any more accurate. Understanding the current state of any artifact chronology, therefore, depends both on what varying levels of precision are currently understood and how that artifact's chronology is linked to other chronological sequences.

It would be impossible in the space of one paper to present the full "current state" of transport amphora chronologies in these terms, even from a strictly Aegean and Eastern Mediterranean perspective.³ A general summary can, however, highlight both the interrelations between classes of evidence

and the varying levels of currently known precision. This summary forms the first part of this paper.

The second part of the paper, the absolute chronology for Thasian amphora stamps in the 4th century BC, illustrates the potential complexities of such negotiations. This example is particularly suited to the Pontic focus of this volume since Thasian amphoras of this period are so commonly found at Black Sea sites. Two recent studies of Thasian chronology use a significantly lower starting date (moving from the late 5th century to c. 389) and a lower date for the transition from two-name to one-name stamps (from c. 340 to c. 330-326) than had been the accepted opinion for many decades.⁴ The specific grounds for the higher chronology, however, were never reconsidered in detail nor were the interactions between these competing Thasian chronologies and the chronologies of other artifacts.

Until the most recent discussions, a central pillar of Thasian chronology was the construction fill for the third version of the Pnyx assembly area in Athens (Pnyx III). The third and final part of this paper, therefore, reconsiders this fill both in terms of both a restudy of the extant excavation records and recent developments in Thasian amphora stamp and other artifact chronologies.

THE CURRENT STATE OF AFFAIRS IN THE AEGEAN

Stamp chronologies

Late Classical and Hellenistic amphora stamps are the most thoroughly studied element of Aegean amphora studies. Recent publications have proposed quite precise dates for Thasian and Rhodian stamps. Alexandru Avram proposed a chronology, year-by-year in some groups, for the Thasian stamps,⁵ and for the old-style two-name stamps Yvon Garlan has offered a similar, but more explicitly general, sequence.⁶ For the Rhodians of periods IB through V (c. 270-108 BC) there is Gérald Finkielsztein's revision to Virginia Grace's chronology,⁷ and in far more detail than Grace was willing to suggest. This chronology so far only covers the eponyms, and only certain fabricants' careers can be reconstructed. Comparatively general dates may be determined for Knidian stamps on the basis of Grace's publications, but no unified statement on the Knidian chronology exists from an Aegean perspective.⁸ Stamps on Corinthian and Adriatic Greek amphoras are also moderately datable,⁹ however, without the links between names that have proven so useful in other classes, these dates depend on the changing shape of the jars and the dates of associated artifacts. Koan amphora stamps remain poorly understood despite the frequent finds of Koan amphoras and despite the existence of an unpublished "Koan corpus".¹⁰ Chian amphora stamps are datable in only

very general terms, with name stamps seeming to begin very late in the 3rd century.¹¹

For the Aegean from c. 400 to 100 BC, therefore, relatively well-dated stamp series cover two broad periods. For the 4th and 3rd centuries there is the Thasian series, though by 250 this chronology becomes uncertain. The Rhodian series then covers the period c. 270 through c. 108 in detail, and earlier and later decades in more general terms. During the 2nd century and the first quarter of the 1st century, too, the stamps of Knidos are datable with some precision.

Jar chronologies and minor stamp classes

Within this same period of c. 400-100 BC, there are various other types, either rarely or never carrying stamps, whose chronological developments are increasingly well-established. From the earliest part of the 4th century, the Chian conical toe type may be traced through the period in question.¹² For the first half of the 4th century, Mendean and other northern Aegean amphoras may be placed within a development of wider to narrower (for further on the Chian and Mendean types, see Part 2, below). Especially problematic in this case is the differentiation between producers and which amphora types may be compared in greater or lesser detail.¹³ Jars with mushroom-shaped rims are common throughout this period,¹⁴ though precise chronologies are often less certain. Known places of manufacture include Erythrai, Klazomenai, Samos, Ephesos, the area near Knidos and further sites eastward along the Datça peninsula, Rhodos, and Kos. Among the better dated of these types are the late 4th or earliest 3rd century form from Rhodos and its peraia,¹⁵ and a type of unidentified place of manufacture with unusually heavy handles and tall neck.¹⁶ The chronology of Erythraian production within this tradition in the 4th century, shifting to a band rim shortly before the mid-3rd century,¹⁷ and finally to a cup-shaped rim (early version of Dressel type 24) near the mid 2nd century,¹⁸ is also becoming clear. Also late in the 4th century continuing into the 3rd century is a wide conical body amphora with a tall neck frequently found in the area of Thessaly and Euboia.¹⁹ A frequently appearing type in late 2nd and earliest 1st century contexts in Greece and elsewhere closely resembles Italian Brindisian amphoras but differs in fabric and chronological longevity.²⁰ Outside Athens (where Rhodian, Koan and Knidian amphoras dominate the later Hellenistic assemblages) various more narrowly regional types are becoming better understood, including late 2nd century grooved rim types from the Troad or eastern Thrace and the 3rd through 1st century Nikandros group, likely from the Ephesos region.²¹

With all of these, however, there is much less chronological precision as compared with the major stamped classes. The absolute chronologies, regardless of precision, depend in the first instance on “fixed points” provided in most cases by references in textual sources. From such points associations

between artifacts, the “synchronisms” so often discussed by scholars working in the Pontic region, allow the chronological ordering of a wider range of types and forms. While the many tumuli and other complexes of finds from the Black Sea region provide important synchronisms,²² the fixed points still tend to come from the Aegean and Mediterranean regions.²³ The inevitable result is that the Aegean and Mediterranean contexts, from which the amphora material might be quite scantily published (if published at all), carry considerable weight in Black Sea chronologies. These contexts and related historical evidence for the period 400-100 BC are relatively restricted in number and generally known, but various details of their quality or security as fixed points deserve closer consideration.

The major contributing sites and historical considerations

A wide range of sites across the Aegean and Mediterranean regions has provided significant data both for the relative sequences of different amphora types and for their absolute dates. The following survey emphasizes the more important or often cited deposits as well as some of the lesser known cases.

Although its role in terms of published contributions to amphora chronologies is noticeably behind its contribution to fineware chronologies, there is an undeniable contribution to amphora chronologies from the Athenian Agora excavations. For the period in question, the best known and the only extensively published deposit is the Middle Stoa Building Fill.²⁴ The Stoa of Attalos building fill is often cited, but it has received only passing reference in Grace’s article on the Middle Stoa. This fill can date, historically, anywhere between 159 and 138. Grace, Koehler and Matheson have argued that the amphora stamps place the construction c. 157, but the amphora stamps indicate this date so the building itself does not provide external evidence for amphora chronologies.²⁵ The fill of an unused foundation trench for the Square Peristyle Building, deposit Q10:1, has played a role in the Thasian chronology for the first few decades of the 3rd century, but this fill has been incompletely reported and depends for its date on Thasian stamps.²⁶ A very few amphora fragments and stamps were found in association with the deposits containing tiles and other debris associated with the Tholos, deposits attributed by Susan Rotroff to events c. 294, but this date itself has not played into the development of the chronologies since the stamps are not published (the latest Thasian stamp, with the eponym Deinopas, is dated by Avram to 296).²⁷

Outside Athens, the most influential excavation must be considered the Ptolemaic encampment at Koroni, in use sometime between c. 267-261 BC. Fortunately amphora stamps and some amphoras too were published in the main report.²⁸ Current opinion tends to place the latest Rhodian stamps at Koroni as being roughly contemporary with the latest coins, c. 265, and the Thasians are placed between 264 and 262.²⁹ A third stamped group from Koroni, those with the abbreviation ZH written above an abbreviated eponym,

is less securely dated. The constraints imposed by the currently accepted chronology of the war, the discoveries of similar stamps at other sites bringing in new constraints, and the need for considerable supply mechanisms that must have accompanied any army might all assist in refining the date of the camp's occupation and the precise chronology of the stamps and amphoras in question.³⁰

While Koroni continues to attract attention, other contexts too have played significant roles in the development of amphora chronologies, 400-100 BC. For amphoras and amphora stamps, the reference to material from Olynthos is not as useful as it is for other pottery; the vast majority of the published material is local Chalkidian and there are not even many stamps from nearby Thasos.³¹ In the same region a few decades later, c. 316 BC, there remains considerable uncertainty as to the impact on amphora production of Kassander's reorganization of the Chalkidike with the synoicisms creating Kassandreia.³² For the 4th and 3rd centuries, a series of wells, workshop dumps and stratified contexts on Thasos have proven immensely important for amphora chronologies, both in terms of Thasian stamps and other imported amphora fragments.³³ The foundation of Demetrias in Thessaly between 294 and 288 provides a *terminus post quem* for stamps (and amphora forms) found at that site; this *terminus* is particularly important for the Thasian chronology and for the early Rhodian and Rhodian-peraia chronology.³⁴ A well in Eretria closed in the 260s BC (dated with reference to events of the Chremonidean war), although rarely cited in amphora studies, provides an important view of early Hellenistic amphoras along the central east coast of Greece and causes slight revisions to Thasian stamp chronology (see below).³⁵ Two mid to late 3rd century well deposits at Pella provide chronological pegs for the Parmeniskos group and the incuse-MI group.³⁶ For the third quarter of the 3rd century, albeit in a somewhat remote location, the city wall of Hellenistic Ilion is now historically fixed before 217 and probably closer to 230.³⁷ The Roman attack on Eretria in 198 provides a valuable *terminus ante quem* for Chian name stamps, which are otherwise reliably attested only in contexts closed c. 190 and later.³⁸ For the latter half of the Hellenistic period, the destruction of Corinth in 146 is still largely accepted as a fixed *terminus* for the Rhodian and Knidian chronologies. A list of fifty Knidian stamps published from Corinth, however, includes 11 from the period 146-108, and as early as 1953 Virginia Grace herself questioned the security of this *terminus*.³⁹ Two deposits on Delos are mentioned as significant for the Rhodian and Knidian chronologies: the Stoa of Philip V, datable by associated inscriptions anywhere between c. 210 and 180, and the building fill for Serapeion C, whose amphora stamps Grace placed near 150 BC. The Stoa of Philip, however, provides stamps only from excavations of uncertain quality for restoration work.⁴⁰ The finewares from the building fill for Serapeion C and related inscriptions might require a date closer to c. 100 than to 150 as Grace suggested on the basis of the Knidian stamps.⁴¹ More distant sites figuring prominently in Finkielsztein's Rhodian chronology

include Carthage (besieged and presumably cut off from imports in 149),⁴² Jerusalem (where the besieging and ejection of the Seleucid garrison on the Acra between 145 and 142 may have been followed by stricter adherence to Jewish laws forbidding contact with ceramics and foodstuffs from non-Jewish sources), Gezer (most likely periods for imports being before 142 and again between 134 and 125), Marissa (non-Jewish Edomites expelled or converted in 112, city destroyed in 108), and Samaria (destroyed 108).⁴³ For the end of the period in question, i.e., around 100 BC, the various destruction-related deposits from Sulla's campaigns in the early 1st century BC provide *termini ante quos* of 86 and 85 BC.⁴⁴

Although lacking historical evidence for their dates, shipwrecks deserve special mention for their role in providing relatively secure associations among different amphora types and other artifacts. The most often cited 4th century shipwrecks include Porticello and El Sec,⁴⁵ both of which are discussed in the second part of this paper. For the late 4th or early 3rd centuries the Kyrenia shipwreck, despite its incomplete preliminary publication, has provided an important closed assemblage.⁴⁶ The Serçe Limanı Hellenistic shipwreck was initially dated on the basis of one Thasian stamp, Pythion V (280s BC), but its main cargo comprised of jars from the area of Knidos may require a date in the late 270s or even early 260s.⁴⁷

For the later 3rd and 2nd centuries, shipwrecks have played a minor role in the current state of Aegean amphora chronologies.⁴⁸ The Apollonia B site at the port of Apollonia (Libya), if it is a single wreck or dumped cargo, provides a surprising link between the Rhodian fabricant Drakontidas, active from c. 140 through the 130s, and the name Ariston.⁴⁹ Whether Ariston is a fabricant or eponym stamp (unclear from the secondary publications I have seen), the name is placed late in Rhodian period III, c. 167/165.⁵⁰ These Rhodian stamped amphoras at Apollonia are accompanied by mouldmade bowls attributed to the Menemachos workshop at Ephesos. The site is therefore important for the dating of both the amphoras and this prolific workshop for Hellenistic fineware.

Alongside historical events providing *termini ante* or *post quos* for finds, historical events or trends have also been enlisted to narrow chronologies through their indirect effects on the archaeological record. Virginia Grace, for example, linked the start of Thasian epigraphic stamping to Athenian concerns over standards of measurement.⁵¹ Although there is no direct evidence that the Athenians required Thasian amphora stamping, Athenian policies may have caused this innovation indirectly. She later proposed that the shift to the new style of stamping c. 340 should have resulted from the rise of Macedonian influence over Thasos.⁵² For the late 3rd and 2nd centuries, the c. 35-40 years represented by the Rhodian stamps in the famous deposit on Pergamon's citadel were tied to good relations between Rhodes and Pergamon c. 220/210-180/175 BC; Rhodian secondary stamps here were tied to Rhodian control of a larger peraia after 188; and phourarchs on related Knidian stamps

were tied to a Rhodian-employed garrison at Knidos between 188 and 167.⁵³ Finally, for the late 2nd century, along with the various destruction deposits cited above, there is the appearance of the term “Andres” on Knidian stamps. Grace interpreted the term as referring to *duoviri*, magistrates at Knidos as part of the Roman system of tax collection; Grace placed their activity between 108 and 88, interrupted by Mithridates’ order to kill all Romans and Italians in 88, and then resuming again between c. 85 and 78 BC.⁵⁴

Such historical links are always the subject of debate. I have recently published a critique of the historical pins relating to the Pergamon Deposit.⁵⁵ Epigraphic evidence places the entry of Knidos into the province of Asia by 100 BC, but no textual evidence establishes 108 BC in particular as the starting year for the *andres*.⁵⁶ Sullan sack contexts in Athens played a significant role in determining this date, and as a result nearly all the Knidian stamps Grace published from Delos were thought to date before the Mithridatic attacks on Delos and Knidos in 88.⁵⁷ Debris on floors and in a storeroom in the House of the Seals on Delos, a house argued to have been abandoned only after the later attack by pirates in 69, includes many Knidian stamps that Grace dated to before 86.⁵⁸ Such an early date seems unlikely especially for the repeated names appearing in debris abandoned in 69. New imports after 85 BC seem much more likely. Such a downward shift in the dates of some names may be compatible with their appearance in “post-Sullan clean-up” contexts in Athens since such deposits often contained material datable on other grounds later than 86 BC.⁵⁹

THASIAN AMPHORA STAMPS

- NEGOTIATING A WEB OF CHRONOLOGY

These various possible intersections between historical chronologies and archaeological chronologies bring me to the second part of this paper: a more detailed consideration of how various classes of evidence affect the absolute chronology of Thasian amphora stamps. Of particular concern are the starting date of epigraphic stamps and the date for the transition from old-style two-name (*anciens*) to new style one-name (*recents*) Thasian stamps. This topic is particularly important for Pontic archaeology both on account of the large numbers of Thasian stamps found at Black Sea sites and on account of the decline in such imports, broadly speaking, after the advent of the new-style stamps.⁶⁰ Although the clear majority of Thasian stamps is found in the Black Sea, and although a significant component of their relative chronology depends on synchronisms discovered at Pontic sites, arguments for their absolute dates depend almost entirely on Aegean evidence.⁶¹

A fundamental problem for the absolute chronology for Thasian amphora stamps is whether Thasian epigraphic stamps began before or after 400 BC. The two most recent discussions, by Avram (1996) and Garlan (1999), place

the starting date c. 390. Both authors found themselves dependent on the much later fixed point of the Koroni camp to arrive at the transition date from old-style to new-style stamps. From that transition date, calculated to be c. 330, they work back to the starting date of the old-style stamps c. 390. While their arguments are quite persuasive, room for uncertainty still remains both because the new-style stamp chronology remains incompletely articulated and because arguments for the pre-400 starting date offered by Grace were insufficiently addressed by Avram and Garlan.

Development of Grace's research

In 1946 Virginia Grace suggested that Thasian epigraphic amphora stamps started before the end of the 5th century.⁶² The evidence for this early starting date came from two late 5th century Agora contexts already excavated in the 1930s, D19:1 and J13-14:1.⁶³ Both deposits contained the same stamp from Garlan's Group B, with the eponym Teles() and the fabricant Eurua(max?) (Fig. 1).⁶⁴ Grace then referred to Athenian interests in controlling standards as a factor in the advent of Thasian stamping. She suggested early dates for various stamp types with reference to Thasian coins and possibilities concerning the iconography of the stamps' devices.⁶⁵

The interaction between historical interpretation and archaeological chronology becomes quite problematic in the next stage of publication concerning the Thasian chronology: Pnyx phase III. In the 1956 volume including the fineware pottery and the stamped amphora handles, Grace noted that "the filling of [Pnyx III] as dated by the Attic figured pottery ... is close to being coterminous with what had been considered pre-Macedonian Thasos, formerly assumed to have ended with the conquest by Philip II in 340."⁶⁶ Only one Attic red-figured fragment was dated after 350.⁶⁷ The only reference to c. 340 in the Figured Pottery chapter is that the amphora stamps are no later than c. 340 according to "independent historical conclusions."⁶⁸ In fact, Grace followed Pouilloux's arguments against a Macedonian conquest of Thasos. But without Philip's conquest, the nature of the "independent historical conclusions" becomes unclear.

Grace shifted her opinion on the date of the introduction of Thasian epigraphic stamps following her study of the contents of well U13:1 in the Athenian Agora. T.L. Shear Jr. published a preliminary report on this deposit in 1975.⁶⁹ He suggested a closing date of this well between 390 and 380 due to both the lack of roulette decoration on the black-glaze, a decorative technique thought to begin in the early 4th century, and the absence of classical kantharoi, thought to start in the 2nd quarter of the century. Despite containing at least 160 amphoras, including four or five possibly Thasian jars, the fill lacked stamped Thasian handles. For this reason, and following the similar lack of Thasian stamps in other large late-5th century deposits, Grace suggested moving the starting date for Thasian stamps into the 4th century. U13:1 is not

Fig. 1.
Thasian stamped ampho-
ra fragment from D19:1
(SS9636, photo courtesy
of the American School of
Classical Studies, Agora
excavations).



mentioned directly in published comments, but her unpublished notes make it clear that this was the catalyst for the change of opinion.⁷⁰ In 1985, Grace wrote of the 340 transition date as fixed by Pnyx III (even though her report on the Thasian amphora stamps was the source for the historical conclusions leading to that date!), and the later starting date of after 400 or even after 390 was simply stated but not discussed.⁷¹ Yet here is a fundamental difficulty: if the Pnyx fill had marked the transition date when stamps were thought to begin before 400, how could that date of c. 340 still mark the transition when stamps were thought to start after 400?

Avram and Garlan

Both Avram and Garlan noted Grace's shift in terms of the starting date and realized that a fixed number of old style eponyms would require a shift in the transition date as well. Homer Thompson and Robert Scranton, in 1943, had in fact offered a later construction date of c. 330-326.⁷² Avram and Garlan accepted this later date,⁷³ but both noted that Pnyx III could not provide a secure, independent terminal date for the old style stamps as had been so long assumed. Both scholars, therefore, took as their starting point the three new-style stamp eponyms found at Koroni (Kleostratos on three examples, Demalkes on three examples, and Idnades on one example).⁷⁴ Garlan starts his calculations from c. 265 for stamps at Koroni.⁷⁵ Stamps of the Koroni Thasian eponyms were also found in stratified contexts at the Thasian workshop site of Kounouphia. Garlan classified the eponyms at Kounouphia both by their use of the barred sigma (earlier), lunate sigma (later), or combination of the two (middle), and by the stratigraphic relationships among the stamps. By this process he proposed that 24 of the 86 Kounouphia eponyms should date before Koroni, and the rest should be later.⁷⁶ Thirty-nine new-style eponyms not found at Kounouphia account for the remaining new-style eponyms falling before Koroni. This group's chronological position is established either by the stamps' use of the barred sigma or, in one case on account of its membership in the "genitive group" whose other two eponyms are attested at

Kounouphia.⁷⁷ Adding 24 and 39 to c. 265 (for the date of Koroni) places the earliest new-style eponym at c. 327. Old style stamps, for which there are 61 eponyms, therefore likely began c. 387.

And yet there is room for uncertainty. M. Debidour, in 1986, listed 25 names as “in the first half of the 3rd century.”⁷⁸ Of these, Garlan assigned five before Koroni, and Avram added a sixth and inserted an eponym not listed by Debidour;⁷⁹ Avram’s two additions move the transition date back to 329. Furthermore, it is now necessary to place the eponym Euagoras before Koroni since two examples of the stamp are published from a well deposit at Eretria persuasively associated with the attack on Eretria early in the Chremonidean war.⁸⁰ The addition of Euagoras moves the transition to c. 330. From Debidour’s list, Avram also assigned 14 eponyms as post-Koroni: those not found at Koukos (a workshop that seems to have ceased production not long after Koroni) but found either at another workshop, Vamvouri Ammoudia, or in a deposit near the Silen Gate on Thasos, and those in a stylistic Group BA defined by Garlan.⁸¹ Four names from Debidour’s list for the first half of the 3rd century remain unaccounted for (Aischrion with monogram HB, Antianax, Kadmos, and Nauplios), and neither Garlan nor Avram provides arguments for their being later than the Koroni group. If these four are pre-Koroni, then the transition date moves to 334. Finally, Debidour’s argument for placing Kleitos as an old-style eponym (not included in the 61 cited above) gives 62 years for the earlier series. It would seem, therefore, that sufficient uncertainties still exist as to leave the possibility open of a starting date approaching 400 (395 if the transition is 334). If the latest Koroni-related Thasians date in fact to the beginning of the war in 267, then the starting date moves to 397.

It is possible, however, from the beginning of the Thasian series, to build a further case – again independently of the Pnyx – in favor of the later transitional date. The case moves from the two Agora deposits cited by Grace in 1946, D19:1 and J13-14:1,⁸² then to a wide range of other deposits and closed contexts involving chronological sequences of other classes of artifacts. The choice between the earlier and later chronologies for the Thasian stamps can then be made in terms of how the Thasian chronology interacts with these associated chronologies.

D19:1

D19:1 is a cistern southwest of the Agora proper in a late 5th-4th century house.⁸³ Many wells and cisterns in this area were filled in around 400 BC, many of the buildings were modified, and the artifact assemblages shift from standard domestic debris to extensive debris from marble working.⁸⁴ D19:1 was filled in after a section of the bedrock cistern wall collapsed. The opening of the cistern was later built over by a wall belonging to the late Hellenistic phase of the house and late Hellenistic and early Roman pottery was found in the fill immediately over the cistern. Excavation of the cistern first

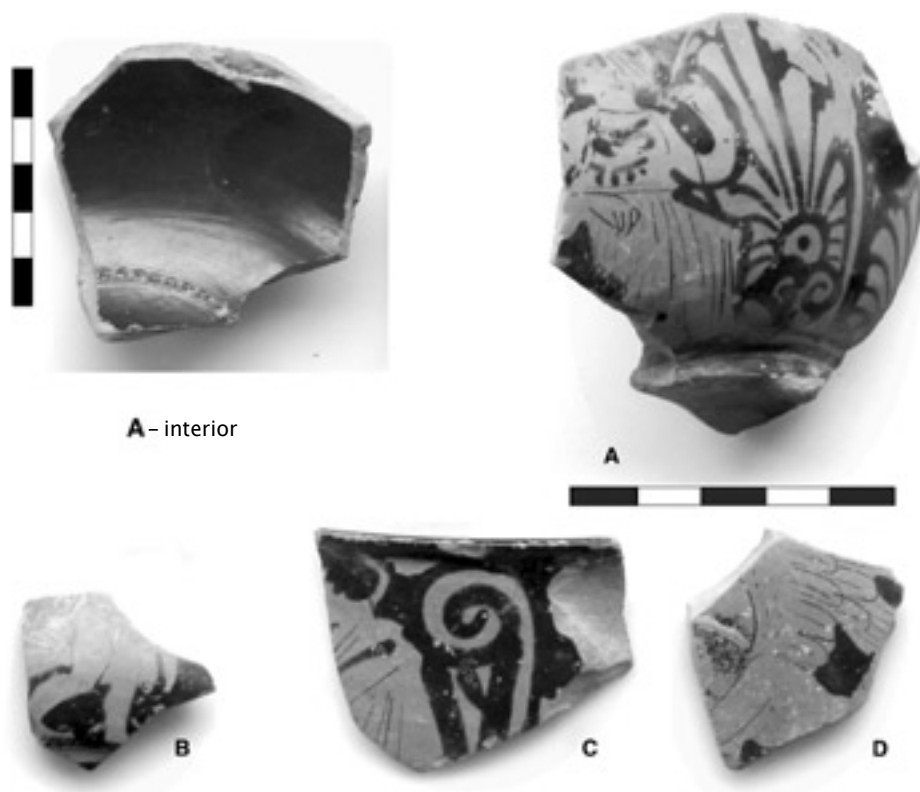


Fig. 2. Early 4th century finewares from D19:1. a) Q-painter cup-skyphos fragment with proto-rouletting on the interior, b) komast dancer, c) Fat Boy group skyphos fragment, d) Eros with fillet in added clay. (From box NN831; photo courtesy of the American School of Classical Studies, Agora excavations).

encountered sandy fill mixed with marble chips for the first 1.8 meters, then the marble chips disappeared over the next 0.4 meters and no longer appeared in the remainder of the fill to the bottom of the cistern at 3.95 meters. The final summary of the excavations refers to Hellenistic sherds scattered throughout – even in the bottom of the fill – and concludes that this 5th century debris was gathered elsewhere and dumped into the well as part of the late Hellenistic renovations to the building.⁸⁵ The presence and then disappearance of marble chips in the fill, however, echoes the stratigraphy of other late 5th/early 4th century fills in the neighborhood. A supplementary fill during the Hellenistic phase of the house may well have been needed to support the overlying wall and level the area once the earlier Classical fill had settled. Pottery from this later fill may have been mixed with the earlier fill during the excavation itself when work was interrupted to build supports for the collapsing bedrock walls of the cistern. If the fill was indeed only deposited in the Hellenistic period it must have been gathered from a largely undisturbed earlier fill since the

Thasian amphora top in question is so well-preserved. This Thasian jar was found in the lower part of the fill and, with the exception of the reported Hellenistic material, the accompanying pottery was all described as dating to the late 5th century. If the accompanying pottery is late 5th century, then the Thasian stamp series, too, should start before 400 BC.

On closer examination, however, there is plenty of early 4th century pottery in the fill (Fig. 2). Two lamps, one from the upper fill and one from the lower fill, are of Howland's type 23C thought to begin early in the 4th century.⁸⁶ The best-preserved red-figure fragment is from a cup-skyphos, very close in style to the work of the Q-painter, whose work is generally dated to the early 4th century; a fragmentary komast dancer is attributable to the same painter and date.⁸⁷ The interior of the cup-skyphos shows what has been interpreted as the forerunner of roulette decoration; however, there is no true rouletted decoration here.⁸⁸ An early 4th century date may be offered, too, for a fragment of a red-figure skyphos of the Fat Boy group and a wall fragment showing Eros with wreath in added clay.⁸⁹

J13-14:1

The second of the deposits mentioned by Grace in 1946 is J13-14:1, fill in and over the Polygonal Drain (an early tributary of the Great Drain). There are two main fills here: a lower fill in the drain itself and an upper covering layer "not later than the 5th century."⁹⁰ The Thasian stamp was found in the lower fill and is poorly preserved as compared with the example from D19:1. Two *ostraka* of Hippokles Menippou in the same fill give a *terminus post quem* of c. 417-415.⁹¹ A lamp from this fill, too, is of a type dated to the late 5th century by Howland.⁹² An early 4th century red-figure askos with panthers provides a later date for at least the upper fill.⁹³ This fragment was not part of the initial set of inventoried pieces from the fill, and the precise findspot (whether from the upper or lower fill) was not recorded even though the fills were kept separate in the storage tins. The most diagnostic amphora fragments in these tins are the Chian toes (Fig. 3); one from the lower drain fill is paralleled in deposits closed near 400 BC, while those in the overlying fill show slight development now better paralleled in the c. 390-380 BC deposit U13:1 mentioned earlier. The lower drain fill with the broken and worn Thasian stamp should be earlier, perhaps no later than c. 390.

Reconsideration of the contents of D19:1 and J13-14:1 does, therefore, establish their early 4th century dates. The dependence of such dates on a range of chronologies other than Thasian amphora stamps is clear. Even with this adjustment of these deposit dates, the starting date of the Thasian stamp series still remains uncertain. The cistern fill D19:1, with its very well-preserved example amidst early 4th century finewares, encourages a date later than c. 400 for the eponym Teles(). The lack of rouletting on associated black-

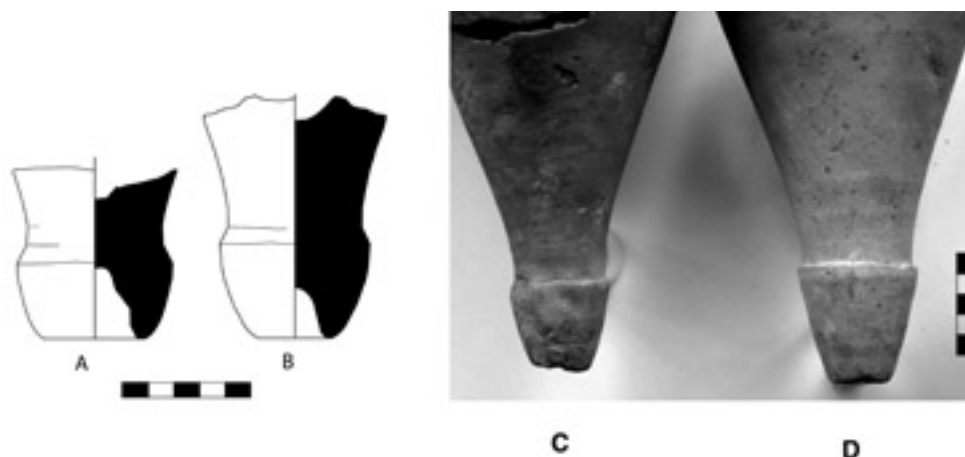


Fig. 3. Chian amphora toes from J13-14:1 (a. lower fill, b. upper fill, drawings by the author), U13:1 (c) and H12:11 (d) (c. P30699, d. from tin Z13, photos reproduced courtesy of the American School of Classical Studies, Agora excavations).

glaze pottery and the fact that the poorly preserved example of the stamp is stratified below a fill contemporary with or even slightly earlier than U13:1 together provide a lower limit of c. 380 or even earlier. This evidence works fairly well with Garlan and Avram's dates for Thasian Group B, though the evidence would fit best if Teles() sat earlier rather than later in this group of names. It is equally possible, with only these two deposits providing the constraints, that Thasian Group B started before 400 and that Teles() appears late in the 390s.

Intersecting Artifact Chronologies

Three different artifact chronologies – Chian amphora toes, Mendeian amphoras, and black-glaze finewares – create a set of constraints to narrow these possibilities for the Thasian chronology (Table 1). To the two deposits discussed by Grace, it is necessary to add consideration of six others: well fillings R13:4, R11:3, U13:1, H12:11, R13:11, and B12:5; cistern fill S19:3; and a fill over a cobbled surface H17:5.⁹⁴ Other closed contexts providing further evidence include the Alonnesos, Porticello, and El Sec shipwrecks; a bothros closed with the construction of the Maussoleion at Halikarnassos; and Olynthos (though only for the finewares).⁹⁵

The Chian toes establish the basic contemporaneity of deposits J13-14:1, U13:1 and H12:11 (Fig. 3). In the J13-14:1 drain fill the Chian toe is still a more knob-like form akin to the earlier 5th century forms. For J13-14:1 upper layer, U13:1, and H12:11, the toes are more clearly conical. There is a slight difference between H12:11 and U13:1 in that the toes of H12:11 show less of

Table 1. *Deposits from Athenian Agora and related shipwrecks: Summary of contents (only artifact classes discussed in paper).*

Deposit name	Amphoras	Finewares	Thasian Eponyms
R13:4 Well filling	Round Mendeans	Rheneia pit parallels; very neat and complex stamp patterns	
R11:3 Well filling	Angular, but short neck Mendeans		
Alonnesos	Angular, slightly taller neck Mendeans	Wide, elaborate ray decoration	
Porticello	Angular, tall neck Mendeans	Stamp decoration more limited, less careful; proto- rouletting on cup skyphos	
D19:1 Cistern Fill		Q-painter with “proto- rouletting”; Fat Boy group; added clay wreath on Eros	Teles()
J13-14:1 Drain fill	Chian conical cuff toes		Teles()
U13:1 Well filling	Chian conical cuff toes; Angular tall neck Mendeans	Very restricted decoration in black glaze stamping; Fat Boy group; no rouletting on anything	
H12:11 Well filling		Solid-black base for bolsals; rouletting on cup- skyphos/kantharos	Aristomenes
El Sec	Taller neck Mendeans; Sinopean Group Ib (Endemos)	grooved ring-foot for bolsals; with rouletting	
R13:11 Well filling	Tallest neck Mendeans – phi stamp		
H17:5 Fill over cobble surface [S19:3 and B12:5]		Rouletting [rouletting and grooved ring-foot on bolsals]	“Phiale”; “Star”

a narrowing of the body just above the toe and the slightly heavier conical toe form.

The sequence for the Mendean amphoras, next, helps to establish the relative proximity of deposits within a longer series spanning the late 5th through mid 4th centuries: deposits R13:4 and R11:3, the Alonnesos and Porticello shipwrecks, then U13:1, the El Sec shipwreck, and finally a complete jar from R13:11. R13:4, and hence the group of five nearly complete Mendean amphoras from its fill, is dated both by black-glaze in the same fill, which closely resembles finds in the Rhenea trench of 426, and by the likelihood that it represents debris from an extensive earthquake of 426/425.⁹⁶ R11:3, a well filled in probably during a late 5th century refurbishment of the east side of the Agora, shows a noticeably more angular body than those in R13:4.⁹⁷ The Alonnesos jars are somewhat later in terms of their forms, continuing the trend towards greater angularity and a taller neck. These jars are accompanied by black-glaze forms with extensive incised decoration typical of the late 5th century. The Mendean amphoras from R11:3 and the Alonnesos wreck, in that order, should fall within the last quarter of the 5th century.⁹⁸ The Porticello Mendean profiles, with significantly taller necks and toes, seem very close to those from U13:1. For this reason, the Porticello wreck should date within the early 4th century. The El Sec shipwreck Mendean amphora is a problem (Fig. 4). When the body in the drawing is printed at the same size as the body in the photograph, the neck in the photograph is noticeably taller.⁹⁹ It is clearly later than the U13:1 jars. Depending on whether one uses the photo or the drawing, however, the El Sec jar may sit midway between the examples from U13:1 and the jar from R13:11, or it may sit very close to R13:11. The jar from R13:11 cannot, however, date later than c. 351 BC since the same stamp with very similar rim and handle appears in a deposit closed by the construction of the Maussolleion of Halikarnassos. Although 351 is the most conservative *terminus ante quem* for this jar, since much of the Maussolleion must have been complete by the time Artemisia died in that year; work on the Maussolleion may have begun as early as the late 360s.¹⁰⁰ The Maussolleion jar provides a much-needed *terminus ante quem*, and the Mendean amphora in El Sec cannot be later.

Black-glaze forms and decorative schemes of the late 5th and early 4th centuries both complement and supplement the evidence from the Mendean amphoras.¹⁰¹ The Porticello bolsals are compatible with examples in U13:1 in terms of shape and decoration (Fig. 5).¹⁰² The Porticello cup skyphos shows very similar proto-rouletting as that seen in D19:1.¹⁰³ The finewares of H12:11 are slightly later than U13:1 for two reasons: H12:11 includes 1) solid black bases on small bolsals with standard ring bases and 2) one fragment of a cup-skyphos with true rouletting (Fig. 6). No bolsal or other fragment from this deposit preserves rouletting.¹⁰⁴ The two earliest Agora deposits with rouletting on bolsals and the grooved bolsal foot are B12:5 and S19:3, neither of which includes Thasian stamps. These deposits, however, share many ele-

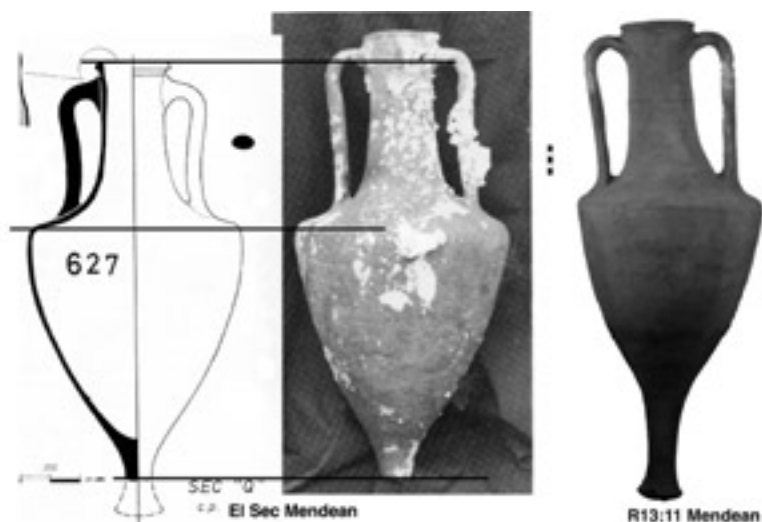


Fig. 4. Mendean amphora from R13:11 (a) and Mendean amphora from the El Sec shipwreck (after Cerdá 1987, fig. 126 and pl. 13, no. 627). (SS14826, photo courtesy of the American School of Classical Studies, Agora excavations).

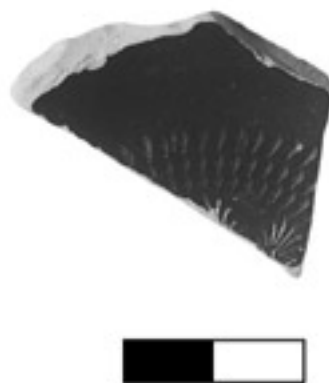
ments with fill H17:5 which does include three Thasian stamps. B12:5 is the richest of these deposits and is dated early in the 3rd quarter of the 4th century by frequent comparisons to Olynthos.¹⁰⁵ D.M. Robinson published one bolsal with rouletting from Olynthos but no profiles showing the grooved foot; presumably both the decoration and the form were rare at that site.¹⁰⁶ This rarity may have partly resulted from patterns of Olynthian imports or interests among local potters selectively imitating Attic details. Three points, however, encourage the conclusion that bolsal rouletting began shortly before 348: 1) the broad similarities between the Attic deposits and what *is* found at Olynthos, 2) the apparent rarity of rouletted bolsals at Olynthos, and 3) that the rouletting and grooved feet do appear first in these Agora contexts with Olynthian parallels. Bolsal rouletting, therefore, should be dated very near the destruction of Olynthos in 348. The El Sec bolsals show full rouletting, a grooved ring foot, and black bases, and they generally appear even more developed than the Agora grooved-foot bolsals.¹⁰⁷ The black-glaze sequence, then, encourages a date closer to 340 (or later) for El Sec. The Maussolleion amphora and the complete example from R13:11, however, keeps the El Sec Mendean jar before c. 360.¹⁰⁸

The Thasian amphora stamp sequence, now, may be coordinated with these other sequences. D19:1 and J13-14:1 share the same stamp, dated by Garland's chronology to the 380s, and both deposits sit at the start of the sequence, close to, but earlier than U13:1. H12:11, the deposit placed just after U13:1 and with

Fig. 5.
Bolsal from U13:1 (P30615, photo courtesy
of the American School of Classical Stud-
ies, Agora excavations).



Fig. 6.
Rouletted cup skyphos base from H12:11
(P14271, photo courtesy of the American
School of Classical Studies, Agora exca-
vations).



the Agora's first case of rouletting, has a stamp of Aristomenes as eponym. Garlan places this stamp in Group C, in the 370s BC.¹⁰⁹ Then H17:5, where there is extensive rouletting, includes three stamps, all of which replace the eponym with a subsidiary symbol, belonging to Garlan's Group F1, dated to 360-350.¹¹⁰ The connections through finewares between H17:5 and Olynthos fit well with Garlan's date for these stamps.

High vs. Low

So far, however, our only independent dates for amphoras are provided by the Maussolleion jar at no later than 353 and by the finds in R13:4 as dated by the Rheneia pit parallels and the likely connection to the 426 earthquake. These widely spaced “fixed points” for the amphoras leave considerable room for movement in all the chronological sequences just described. And yet, the addition of Olynthos (even without amphoras there being so useful) and constraints brought on by the extent of development between deposits just discussed limit the possibilities just enough to allow a decision between the higher and lower Thasian chronologies (transition date at c. 340 or c. 330-325). Three problems in particular emerge when the transition date is moved earlier from c. 330-326 back to c. 340 (Table 2).

First, near the beginning of the sequence of deposits I have been describing, the Mendean amphora development in the last three decades of the 5th century and the earliest decade or two of the 4th seems very compressed. This is perhaps an overly subjective assessment and rates of amphora development do vary through time.

The second problem, too, depends in part on one’s views of stylistic development. In the higher chronology, the red-figure painter styles and the black-glaze decorative styles attested at Porticello, D19:1, and U13:1 now become late 5th to very early 4th century styles. Such a position crowds backwards the finewares from Himera in Sicily (sacked and abandoned in 409), from the grave complex of the Lacedaimonians in Athens (c. 403), and from the Dexileos cenotaph precinct (c. 396), and the red-figure dates derived from late 5th century sculpture.¹¹¹

The third problem occurs later in the sequence. The cluster of three Group F1 Thasian stamps in H17:5 makes it likely that the bulk of the finewares, too, should be close to Group F1. And yet, using the higher date for the Thasian transition H17:5 is now 20-25 years earlier than the very similar deposit B12:5. B12:5 and El Sec must stay later on account of Olynthos – they cannot be pushed up by the transition date. Even though we are considering an earlier transition date here, the fixed number of Thasian eponyms in fact creates an excessive stretching of the fineware chronology for the first half of the 4th century. With a higher chronology, around six decades would be required to move from proto-rouletting to rouletted bolsals, as compared with roughly four decades or less – a more likely gap – in the lower chronology.

(Dates for Thasian groups in column 1 roughly follow Garlan 1999; dates in column 2 are derived from Garlan’s ordering and numbering of the Thasian eponyms)

Italicized points are independently dated: R13:4 by Rheneia trench parallels and earthquake in Attica; Maussolleion amphora by likely construction period for Maussolleion of Halikarnassos which provides a precise parallel for the complete Agora jar.

* Gap between Porticello and Alonnesos seems too narrow for the amphora forms.

**H17:5 should sit closer to Olynthos and to B12:5, but must stay very near Thasian Group F1.

Table 2. *Late and Early Dates for the Thasian start and transition.*

	Transition c. 330 or later	Transition c. 340 or earlier
430-425	<i>R13:4 Mendean amphoras c. 430</i>	<i>R13:4 Mendean amphoras c. 430</i>
425-420		
420-415		R11:3 Mendean
415-410	R11:3 Mendean	Alonnesos wreck
410-405		Thasian Group A
405-400	Alonnesos wreck	Thasian Group B; Porticello wreck w/proto-rouletting * J13-14:1; D19:1 w/proto-rouletting
400-395		Thasian Group B U13:1
395-390	Thasian Group A	Thasian Group C H12:11 w/rouletting
390-385	Thasian Group B; Porticello wreck w/proto-rouletting J13-14:1; D19:1 w/proto-rouletting	Thasian Group C
385-380	Thasian Group B U13:1	Thasian Group D
380-375	Thasian Group C H12:11 w/rouletting	Thasian Group E
375-370	Thasian Group C	Group F1
370-365	Thasian Group D El Sec Mendean	Group F1; El Sec Mendean H17:5 with rouletting **
365-360	Thasian Group E <i>Maussolleion amphora c. 365</i>	<i>Maussolleion amphora c. 365</i>
360-355	Group F1	
355-350	Group F1; H17:5 with rouletting;	
350-345	<i>Olynthos destruction</i>	<i>Olynthos destruction</i>
345-340	El Sec bolsal rouletting; B12:5 with bolsal rouletting	Thasian transition date ; El Sec bolsal rouletting; B12:5 with bolsal rouletting
340-335		
335-330		
330-325	Thasian transition date	

PNYX III

My starting points for the foregoing discussion were the two deposits initially used by Grace in proposing a late 5th century date for the Thasian chronology. Their significant role in the development of the Thasian chronology necessitated the detailed consideration of these fills above. For the same reason, the date of Pnyx III and how that fill might fit with the conclusions just offered also deserve further attention. The following discussion is based on a review of the excavation notebooks, the catalogue cards for the amphora handles, the handles themselves, and an unfortunately cursory reconsideration of the remaining stored, unpublished context pottery.¹¹²

Of primary importance to any discussion of the Pnyx finds is the problematic nature of the Pnyx III fill. The presence of 3rd-century AD pottery deep within trenches abutting the massive terrace wall of Pnyx III has already been addressed by Susan Rotroff as intrusion from attempts to rob stones from that terrace wall. Rotroff, however, also notes the presence of independently datable Hellenistic material, including stamped amphora handles, from areas that are conceivably part of the third phase fill. For example, Grace's no. 29, an early Thasian stamp with the eponym Damastes, was found in the same general area (Trench A, 7-12 m south of the terrace wall 2-3 m deep) as no. 183, a Knidian stamp with the early 1st century BC eponym Aristainos (same trench, 10-13 m from the wall at the same depth).¹¹³ Likewise, no. 38, an early Thasian with eponym Isagores, is described as coming from the "surface - 1 m" depth in trench C, a context described in the notebooks after review of the pottery as "mostly Greek" (i.e., also containing Roman pottery). Especially difficult for the idea that Pnyx III marks the end of old-style stamping is the presence of a new-style stamp in the fill. No. 67, an unrestored new-style stamp (with a query as to its belonging to Pnyx III in Grace's publication, but with no such query on the catalogue card)¹¹⁴ with an alabastron, for which the position of the extant letters relative to the device may require the restoration of either Aristophanes II or Chaireas.¹¹⁵ Most problematic, however, are the two latest old style stamps reported as Pnyx III Assembly fill. The earlier of these, with the old-style eponym Pythion and device of Heracles as crouching archer, was found in excavations of October 1932. While areas of the Assembly Fill were cleaned and excavated further in this month, there is no precise record of where artifacts were found. Many other stamps from this same month's excavations, listed as being from Assembly fill on the catalogue cards (the only extant record of their findspot), are fully Hellenistic (Sinopean and Rhodian).¹¹⁶ The latest old style stamp, Aristokr() with wheel device, is recorded in the excavation notebook, but it comes from excavations of the upper terrace gate area *not* from the Assembly area fill. The latest Thasian old-style stamps securely from the Assembly fill are those of the eponyms Damastes and Panphaes (17-18 years before the transition to new-style stamping according to Garlan's [1999] ordering of the eponyms).¹¹⁷ In terms of the

available documentation, then, and using Garlan's chronology, the Thasian stamps offer a *terminus post quem* in the early to mid 340s for the deposition of the Pnyx III assembly fill.¹¹⁸

In addition to these problems of findspot, one other point concerning the Pnyx III fill has been largely overlooked. There is no other fill in Athens with so many old-style Thasian stamps. From 30 Agora deposits I have studied in their entirety closed between c. 390 and 300 BC, there are only *four* old-style Thasian stamps (including the three discussed above and one from a later 4th century deposit) and ten new style stamps. These deposits include 19 well or cistern fills, six pits, three drain channel fills, one relatively small construction fill, and one bedrock cutting. Even the large later Hellenistic building fills (e.g., the fills for the Middle Stoa and the Stoa of Attalos) rarely included old-style stamps as residual material.¹¹⁹ Regardless of the problematic identification of certain stamps as "building fill", the Pnyx III fill must have included a huge mass of debris from precisely the period of old-style Thasian stamping. This requirement may be deduced from the general rarity of the stamps even in large contemporary fills, fills with plenty of other amphora fragments, and hence the need for a very large "sample" to end up with so many such stamps in the excavated trenches. Furthermore, this mass of fill must have been deposited in this location at roughly the same time as its collection or else the old style Thasian stamps would have dispersed to being a minor presence here just as they are in other large fills deposited in later periods; the later Hellenistic and Roman pottery need not force a post-4th century date for Pnyx III.¹²⁰

Is it then possible to narrow the date of collection and deposition of this "huge mass of debris" from "the period of old-style Thasian stamping" to either c. 355-342 (the period of Euboulos' control of the Athenian Theoric fund) or c. 338-326 BC (the Lykourgan period) and thereby settle the lengthy historical debate as to the "financier" of Pnyx III? The ceramic evidence apart from the amphora stamps leads to similar conclusions as have been just drawn from the amphora in terms of the nature of the accumulation and its date near the mid 4th century. The numismatic evidence inclines towards the later date; however, this conflict may be reconciled by further attention to the excavation records for the coins and the current foundations of the coin chronologies.

While detailed publications were produced for the red-figure pottery, lamps, loomweights, and black-glaze pottery; coarsewares from the Pnyx III fill have never been published in detail. The red-figure pottery was described as quite fragmentary, with no mends found between pieces, but generally datable within the first half of the 4th century. The latest fragment, and the only one thought to date later than c. 350, was attributed to the Filottrano painter. Talcott, Philippaki, and Rotroff all place the fragment "early in the 3rd quarter of the 4th century" and examples of this painter's work are found at Olynthos.¹²¹ There have been attempts to lower the date of this painter's career into the late 4th century, but the current consensus seems to keep his activity

within the 3rd quarter of the century.¹²² The “fragmentary” characterization of the material also deserves some qualification. Although mends were not found, the fragments are at times quite large.¹²³ Material gathered from various “new” debris piles in the area, then combined to form the Pnyx III fill, then sampled in a series of trenches (i.e., leaving large parts unexcavated), might well no longer preserve joins within the recovered fragments. The black-glaze pottery is generally characterized as typical of the middle to third quarter of the 4th century. In terms of the black-glaze sequences already discussed in this paper, it is notable that bolsals with grooved foot are the dominant form for that vessel, and this feature seems typical of fills closed c. 350 or slightly later (as discussed above).¹²⁴ The lamps, by all accounts, show some development beyond forms seen at Olynthos.¹²⁵ The actual length of time past 348 is difficult to ascertain considering potential selectivity on the part of Olynthians as to what to import and what to imitate.¹²⁶ The loomweights from the Pnyx III fill itself tend to be fairly consistent in terms of typology.¹²⁷ And yet, since the Pnyx offers the only extensive discussion of loomweights from Athens, there can be no certainty as to the chronological parameters demanded by the Pnyx III fill group. On the whole, however, the ceramic dates fit very well with the revised assignments of Thasian stamps to the building fill and the latest dates of those stamps.

The numismatic evidence does not fit so well and remains problematic.¹²⁸ The most narrowly datable type discussed as helping to date Pnyx III is a double-bodied owl bronze coin. J. Kroll considers the type to have begun c. 338 in imitation of a silver series thought to start “in the 340s.” The diameter of the Pnyx specimen at 13 mm is appropriate for both the earliest and middle types of the bronze series. And yet, the silver coins themselves seem to depend on the bronzes for their date, so neither chronology seems especially secure. As with the amphora stamps, the findspots of significant coins are also problematic. The double-bodied owl was found at a depth of 0.6 m at the “middle” of Trench A. The notebook description of work the day that coin was found casts serious doubt on the secure attribution of this coin to the Pnyx III fill: “The surface of the undisturbed fill appears to lie on the average 0.80 m deep, so that *no material so far secured can be used with assurance as evidence for dating*” (Pnyx notebook I, p. 12, Dec. 10, 1930, emphasis added).¹²⁹ The coins, therefore, begin to resemble more and more the latest old-style Thasian stamps and single new style stamp attributed to the Pnyx III fill, i.e., the coins too constitute marginally later material found in unreliable contexts.

The archaeological evidence may be summarized as follows. There is an undeniably large mass of early to mid 4th century ceramic material continuing into the 340s. In addition to the many amphora handles, there must have been even more fragments of amphoras themselves to go along with other coarsewares, lamps, finewares, and loomweights. While much of the debris would be appropriate as debris from common houses (such as were found in the vicinity),¹³⁰ there are also pottery and figurines appropriate to ritual

activity.¹³¹ After this material there is a fairly consistent smattering of debris from the later 4th century and later.

One explanation for a large mass of mid-century debris, apparently not so far removed in space or time from its point of origin, may be drawn from an unfortunately oblique reference to expropriation (?) of houses and other property on the Pnyx hill late in 347/6.¹³² Recent commentary on this text suggests that the buildings and cisterns involved were largely derelict and out of use. Perhaps a more conservative interpretation of the passage is to read here an expression of the Boule's (and then the Areopagos council's) renewed interest in the Pnyx area as they began to consider renovations to the old Assembly area. Debris from these and other buildings might then have been brought together to form the core of the new Assembly place fill. J. Camp has argued that the masonry style of the great curving retaining wall also fits well with this date.¹³³ The later 4th century material might well have been deposited as work continued intermittently after the construction of the retaining wall and the deposition of the main body of the fill. Building activity in the area continued perhaps as late as the early 260s once work stopped on the stoas (incomplete) and the "compartment wall", a section of city wall overlying the stoa foundations.¹³⁴ Reconsideration of the archaeological evidence for the date of the start of the Pnyx III construction inclines towards assigning Euboulos as its initial patron probably between 346 (the date of the expropriations) and 342 (the end of Euboulos period in power).

SOME FURTHER IMPLICATIONS:

AEGEAN INFLUENCE ON PONTIC CHRONOLOGIES

Pnyx III alone tells us very little despite its high profile in amphora studies between the 1940s and early 1990s. And yet, many other deposits earlier than Pnyx III, artifacts other than Thasian stamps themselves, and the chronological sequences of these related artifacts can all be used to build a case in favor of the c. 330-325 transition date for Thasian stamps. When this case is combined with Avram's and Garlan's arguments working backwards from Koroni, the possibility of floating eponyms pushing that transition closer to 340 becomes that much more unlikely. Such a late date for the transition from old to new style stamping, however, does not indicate a late date for Pnyx III. According to the extant records, the latest Thasian stamps in that building fill predate the transition by 17-18 years. For this reason, far from providing an independent "fixed point" for the Thasian chronology, the Pnyx III fill takes its date c. 345-342 from the Thasian dates, red-figure pottery dates, and textual references, whose chronological strength is derived from how well they fit with the reconsidered archaeological evidence.

A much more specific point returns us to the Black Sea. I have just proposed that the isolated Mendean amphora on the El Sec ship was roughly

20-40 years old when that ship sank. The other jars on that wreck found in multiple examples as well as much of the black-glaze and red figure finewares are datable after 350. It seems likely that the Mendean jar was simply a bit of cargo left over from earlier ventures or an old jar, in a state of re-use, picked up along the ship's likely quite circuitous voyage. Even in a closed deposit, therefore, there can be much earlier pieces; this is seen all the time in closed deposits on land but shipwrecks are often claimed to offer greater precision. Another isolated find at El Sec is the often cited Sinopean stamped handle and upper part of a jar with the Group Ib eponym Endemos and the fabricant Timorios.¹³⁵ This eponym tends to be placed near the beginning of Sinopean stamps naming the eponymous *astynomos*, and the El Sec wreck is often cited as providing a date for the start of this chronology. Given the situation with the Mendean jar, it becomes difficult to use the closing date of the El Sec shipwreck to assign a starting date for Sinopean eponym stamps on the basis of this isolated case. Here again we might have a case of re-exportation or even an old broken fragment in the cargo area of the ship. Conovici's date of c. 355 does, it turns out, work fairly well with a c. 340 or slightly later date for the wreck, but the wreck itself cannot offer much support. By the same reasoning, however, the wreck cannot be dated by the Sinopean handle.

A final point brought out by the foregoing discussions of Agora deposits and the Pnyx excavations in particular is the need for detailed reconsideration even of long ago published and well-known points of reference. Even apparent "facts" such as the attribution of a particular amphora stamp to a particular building fill can turn out to be too uncertain to support the conclusions that have come to be placed upon them.

Notes

- 1 I am most grateful to the organizers for the invitation to speak at the conference in Aarhus. The research for this paper was made possible by a fellowship to the American School of Classical Studies provided by the National Endowment for the Humanities. This paper has benefited greatly from comments following its presentation in Aarhus; remaining errors of commission and omission are my own responsibility.
- 2 E.g., Morel 2000, 13. The same view is implied by those who desire different specialists to work independently to arrive at "objective" dates for strata. The frequently expressed view that analyses of clays should be carried out "blind" has also been criticized as naïve to the realities of how best to achieve progress in that field as well (Whitbread 1995a, 97-99).
- 3 Given the vast bibliography relevant to transport amphoras from Pontic sites it might seem perverse to summarize only the current state of knowledge from an Aegean-Mediterranean perspective with only minimal reference to Pontic bibliography. Two considerations, however, encourage just such an approach in this paper. First, isolation of this evidence, even in the selective fashion necessitated here, offers one "Aegeanist's" version of significant points and might therefore serve as a point of entry into the non-Pontic bibliography. Second, much of the

evidence for absolute chronologies for non-Pontic amphora types depends on Aegean evidence even if Pontic archaeology provides a great mass of evidence for relative chronologies (see contribution by Monachov to this volume).

- 4 The studies in question are Avram 1996 and Garlan 1999a; the review is part of Lawall 2001a.
- 5 Avram 1996; cf. Debidour 1998, 400-401.
- 6 Garlan 1999a.
- 7 Finkielsztein 2001 (with references to all earlier iterations of his “*chronologie basse*”); and Finkielsztein 2000b for later Rhodian stamps. For Grace’s statements on the Rhodian chronology, see in particular Grace & Savvatianou-Petropoulakou 1970, 289-302; Grace 1974; and 1985, 7-13. A clear presentation of Grace’s chronology is presented by Empereur (Empereur and Hesnard 1987, 18-19; Empereur 1990). Study of the earliest Rhodian stamp periods is hampered by scarce publications of the major assemblages, especially those on Rhodes itself, and problematic identifications of earliest Rhodian amphoras and stamps (as opposed to amphoras from Knidos or other nearby regions).
- 8 Grace & Savvatianou-Petropoulakou 1970, 317-324; Grace 1985, 13-18; summarized by Empereur & Hesnard 1987, 20-21; Koehler & Wallace Matheson (forthcoming). Jefremov (1995) offers a much different chronology, but he did not take account of the much wider range of Aegean and Mediterranean evidence available to Grace and Koehler. For a skeptical view of Jefremov’s chronology, see Empereur & Garlan 1997, 181-182.
- 9 Koehler 1978. I use the term Adriatic Greek to refer to Corinthian Type B. Although kilns for these amphoras are now published from Corcyra (Preka-Alexandri 1992 and Kourkoumelis 1990), there are strong indications of production of similar jars elsewhere along the Greek and Albanian Adriatic coasts, see Ceka 1986, esp. 83 and 89 with pls. 7-9; Desy 1988, 414; Andreou 1990; Bereti 1992, esp. pls. 2-3; and Joehrens 1999, nos. 22 and 23.
- 10 Grace & Savvatianou-Petropoulakou 1970, 363-364; Grace 1985, 18; Börker & Burow 1998, 60-62 and 112-115; Jöhrens 1998, 252-253, and very brief discussion of the problem of the Koan chronology in Empereur & Hesnard 1987, 22. Disparate references to associations between Koan stamps and other datable artifacts have never been synthesized into a statement on Koan stamp chronology.
- 11 The earliest consistent findspots for Chian name stamps are associated with the Roman attack on Eretria in 198: Ikesios was found in a house thought destroyed in 198 (*Eretria* X, 87-89 and 245, no. 22); Erm() was found in a drain filled after 198 (*Eretria* X, 243, nos. 2-3). Agora contexts cited by Grace (Grace & Savvatianou-Petropoulakou 1970, 361-362 and Grace 1956, 166-7) indicating a 3rd century starting date for Chian name stamps are now dated as closing no earlier than c. 190 BC: M21:1 (*Agora* XXIX, 461-462) where the latest Rhodian stamp carries the eponym Kallikratidas II, dated by Finkielsztein 2001, 192 to c. 175/173 BC; Q8-9, with latest Rhodian eponym Ieron I (Finkielsztein 2001, 192, c. 186; and see *Agora* XXVII, 155, *Agora* XXIX, 469) and the latest Knidian Philophr(on) (Grace 1985, 23 note 60 suggesting a date not long after 188); O20:2, also with Rhodian eponym Ieron I; N20:6 with the latest datable artifact being a coin of c. 196-190 (*Agora* XXIX, 464). The well at Kophina on Chios, initially dated as closing c. 250, more likely closed within the 2nd century given revisions to the date of Thompson’s Groups B and C (Anderson 1954, 144-159, especially 159). The only two contexts with Chian name stamps with claims to early 3rd century dates are not sufficiently discussed in their respective publications to permit any evaluation of the accuracy

- of those dates (*Eretria* II, 27 and 65, nos. 3-4 naming Ikesios; Jöhrens 1998, 250, no. 858, naming Philisteus).
- 12 Monachov 1999a; Lawall 2002b; Monsieur 1990; Lazarov 1973, 7-16, nos. 40-63 provides many illustrations but none are independently datable; and Lazarov 1982, 10-12 for 4th century Chian. "Chronique des fouilles en 1957" (759, figs. 7 and 8) illustrates a Chian amphora from a tomb in Thessalonike and the accompanying late 4th century black-glaze pottery.
 - 13 Monachov 1999a and 1999b; Lawall 2002b; Papadopoulos & Paspalas 1999; for earlier northern Greek amphoras Schmid 1999; Lawall 1995; 1997; and cf. Kantzia 1994 followed by Empereur and Garlan 1997, 180 (who then, without argumentation, attribute to Kos the Mendeian jars from Porticello; though of course in their short review there was not room to defend such a reattribution) raising the possibility of quite distant production of a similar form.
 - 14 This general type includes many subdivisions of form and fabric and, not surprisingly many labels have emerged over the years (Solocho I, Ust'-Laba type, and the misnomer "Greco-Italic"). Since profiles published under such labels in the past are now emerging as identifiable series on their own, it seems preferable to use a more generic term for the class (mushroom rim) and specific geographical or fabric-based descriptors for individual types.
 - 15 This is the type dated by the Kyrenia shipwreck to c. 300; however, note that the two legible coins from that wreck permit, even encourage, a date later than 300 (cf. Morel 2000, 13; Finkielsztein 2001, 48 note 53; among others who use this largely unpublished wreck as a fixed point).
 - 16 This form is published from Gela as dating shortly before the sack of that city c. 282 (Orlandini & Adamesteanu 1960, 197, fig. 22a); unpublished examples from Athens appear near the same date; and from a slightly later context, see Schmid 2000a, fig. 188, no. 69.
 - 17 Lawall 1999, 191-192 (note that it is now clear that most of the pieces I referred to as "heavy ring toe" in 1999 belong with the "banded rim"); Kossatz 1985, 189, no. 25; Raeck et al. 2000, no. 17.2.
 - 18 The type Dressel 24 is most often dated from the 1st c. AD and later; however, a clear predecessor of the 1st century AD form exists by the late 2nd century BC and can be traced earlier as well. In general, see Užencev & Juročkin 1998; and see Finkielsztein on material from Marissa (2000a, 210-211 arguing for a Chian provenance, but the type is labeled as Dressel 24 in his forthcoming report on the Marissa amphoras; Hayes & Harlaut 2001, 113, note 10, no. 35, fig. 69 referring to K. Senol advice attributing the type to Erythrai on the basis of finds from workshop sites (see Özyigit 1989, especially fig. 5 and pls. 4-5).
 - 19 Frequent examples appear in the region of Thessaly and Eretria, see Reinders 1988, fig. 114 no. 34.02 from the House of the Coroplast a New Halos; Metzger 1990, fig. 11 nos. 157 and 162; Metzger 2000, fig. 173 nos. 1, 6, 7 and fig. 174 nos. 2, 8, 9; Schmid 2000a, fig. 188 nos. 67-68 many in contexts datable before c. 260 BC. This form may be related to the Solocho II form, now associated at least in part with workshop debris on Peparethos and Ikos (Doulgéri-Intzessiloglou & Garlan 1990). These 'Thessalian' area jars share with the Peparethan-Ikian jars a tall neck, rounded rim, handles attaching near the rim, and thumb-prints at the bases of the handles. The Peparethan-Ikian jars are not included in this survey of datable 4th- through 2nd century amphoras since the chronological span of their production in the 4th century is not known.

- 20 For these Brindisian-like amphoras, see examples from Thessalonike (from a poorly datable context from the 1st century BC and later, Adam-Veleni et al. 1996, fig. 18), Pella, from debris resulting from an early 1st century BC earthquake (Chrysostomou 1996-7, 226 and fig. 62), Athens (Grace 1979, fig. 38, third from left; the type appears often in Sullan sack contexts; and then, much later, a fractional example from *Agora V*, J50, 3rd c. AD), and Marissa (Finkielsztejn 1999, fig. 111b seems to belong with this non-Brindisian group) – the fabrics differ from published descriptions from Adriatic Italy and from fabrics of stamped Brindisian handles; and the sharply modelled rim profiles too are unattested among the Brindisian finds (Palazzo 1989 and 1990; Manacorda 1990).
- 21 For grooved rim amphoras see Tekkok-Biçken 1996, 13-14, pl. 1b; Hayes 1995, 181, figs. 5 and 6; Lawall 1999, 192, no. 77, fig. 13; Panas & Pontes 1998, 224 and 236, figs. 1 and 2, though note that further stratigraphic study after 1998 revealed that this amphora type should be limited to the later 2nd and early 1st centuries BC instead c. 300-100. I thank Chryssa Karadema for showing me extensive material attributable to Ainos (modern Enez); the fabrics of the late Classical material from Enez closely resemble the fabrics of these later Hellenistic amphoras. For the Nikandros group the most extensive discussion so far available is Gassner 1997, 107-108; see too Cankardas Senol 2001 and Lawall (forthcoming).
- 22 A bibliography of Pontic assemblages providing chronologically significant synchronisms would fill many pages: a selection includes Conovici 1989, Monachov 1999a; Garlan 1999a; and Lungu 1999.
- 23 The most striking illustration of this phenomenon is the dependence of the Sinopean absolute chronology on the few rare occurrences of Sinopean stamps in Aegean or even western Mediterranean contexts as discussed by Conovici 1998, 50-51 with reference to the El Sec wreck (see further discussion below), the Valma well on Thasos (Garlan 1989; Blondé et al. 1991; Picard 1989 for the coins), and contexts from the Athenian Agora referred to by Grace 1985. The Pontic contexts (the tomb of the warrior at Vani and the Five Brothers tumulus at Elizavetovskoe derive their dates in part from the Sinopean stamps themselves; however, there is a coin of Philip II in the Vani burial, see Brašinskij 1984a, 139). The Agora contexts, too, depend for their dates in part on Grakov's (1929) chronology for the Sinopean stamps.
- 24 Grace 1985; Grace & Savvatianou-Petropoulakou 1970, see index pages 381-382; Grace 1974. Not one fragment without a stamp has been mentioned from this fill nor was a single such fragment ever inventoried. Despite the extensive attention to this fill, there is no published list of the stamps present. While items from other Agora contexts have been published, and while the contexts' dates have figured in the dates assigned to the published stamps, the Middle Stoa fill is the only deposit of the period c. 400-100 BC to have received extended treatment in print. Rotroff 1988 illustrates the need, even in this case, for careful distinction between sealed construction fills and later fills.
- 25 Grace 1985, 14-15 for the date; more recently Koehler & Wallace Matheson (forthcoming) use this building's construction to support Grace's Knidian chronology; for examples of treatment of 157 as a "fixed point" see Finkielsztejn 2001, 41; Empereur 1990, 202 and 207 where he includes 156 BC as the last year before the closing of the Stoa of Attalos fill. Kohl 2001, 253 uses a date of c. 150-146 with reference to the stamped handles (cf. Grace 1985, 14-15) and the coins; *Agora XXIX*, 468 uses c. 150 noting that the latest stamped handle is dated by Grace to c. 157; *Agora XXVI* uses c. 150 in the text but c. 157 in the deposit list and note that only

- one Achaean coin might date close to the middle of the 2nd century or it may be much earlier; no Athenian coins are later than the early 2nd century, including types dated in part by the date of 183 BC for the Middle Stoa as derived solely from the stamped amphora handles(!).
- 26 Lawall 2001a, 534 on this deposit; cf. Avram 1996, 29; Garlan 1979, 249; Grace 1986, 556-557, indicating the context dates the stamps “before perhaps 285 BC”, but cf. comments below – the stamps clearly date the context(!); *Agora* XXVII, 143-153, especially 144-145 gives the broader context of this and related deposits and the evidence for their date, but note the amphora stamps in Q10:1 constitute the latest closely datable material. The coins were minted no later than c. 295, but the likely latest stamp (Aischron I, in the “genitive group”) should fall late in the 270s or early 260s (Avram 1996; Debidour 1986, 332; Garlan 1993, 168-169).
 - 27 Rotroff 1984; the stamp is SS2618 with the eponym Deinopas. For Deinopas’ date at 296 see Avram 1996, 54; Debidour 1986, 331 places Deinopas 325-310.
 - 28 Vanderpool, McCredie & Steinberg 1962 is the primary report; Grace 1963 responds; Vanderpool, McCredie & Steinberg 1964 responds to both Grace and G.R. Edwards; McCredie 1966 puts the site in its broader context; Grace 1974 accepts the Chremonidean interpretation of Koroni. For the dates of the war, see Heinen 1972, 100-202 and Walbank 1984, 236-239; cf. Vanderpool, McCredie & Steinberg 1962, 59, basing their dates on Meritt 1961, 223-226.
 - 29 Garlan 1993; cf. Avram 1996, 55, where the Koroni names are listed as ending in 260, but this was adjusted by Avram 1999b, 224; For the Rhodian dates, see Finkielsztejn 2001. The Zenon group stamps are not so precisely datable (see note 47 below).
 - 30 S. Rotroff notes the unusual types among the finewares at the Koroni camp (*Agora* XXIX, 31-32) and Vanderpool et al. note the unusual abundance of Ptolemaic coins at the site (1962, 57); both of these points imply supplies from outside Attica. Likewise the amphora assemblage is poorly matched in Athens itself where early to mid 3rd century deposits are devoid of Rhodian, Knidian region, and Greco-Italic amphoras (this point is made by McCredie 1966, 12 and supported by my own research studying all saved amphora fragments from selected deposits dating between 525 and 86 BC; for similarities among various Chremonidean assemblages, see Varoucha-Christodouloupoulou 1953-1954). There is, however, nothing especially “Egyptian” about this amphora assemblage. Supplies from seaborne merchants seem indicated by this evidence. For further discussion of the provisioning of armies, see Descat 1995. On the need for wine in particular as nourishment for an army see Livy 37.27; I thank John Camp for this reference. Note that the often mentioned idea that the Koroni amphoras were in a state of re-use as water jars may have resulted directly from the problems of reconciling apparently early dates for the pottery as compared with the historical dates for the camp (Grace 1963, 327; Vanderpool, McCredie & Steinberg 1964, 74; McCredie 1966, 12; Grace 1974, 197).
 - 31 Robinson 1950, 426-431; similar stamps are published by Garlan 1989 and Peirce 2001.
 - 32 See especially Whitbread 1995b, 36; Papadopoulos & Paspalas 1999, 177-180; and Lawall (forthcoming), “Nothing to do with Mendaian amphoras...?”
 - 33 Garlan 1979, 1985, 1986, 1989, 1990a, 1993 and 1999a; Blondé et al. 1991; Grandjean 1992;
 - 34 For reference to a *terminus post quem* of 294, see Debidour 1986, 313; Avram 1996, 31 and Garlan 1990a, 481. Note that we do not know precisely when Demetrias

- was founded; there is no direct evidence for a narrower date of foundation in the ancient references, see Stählin, Meyer & Heidner 1934, 178 note 5. For the published stamps from Demetrias, see Beyer, von Graeve & Sinn 1976a and Henninger 1976. The specific evidence for dates of stamps from the Demetrias excavations should be checked on a case-by-case basis since stamps found stratified, for example, contemporary with or later than the construction of the Anaktoron may more likely date from the late third century (Beyer, von Graeve & Sinn 1976b, 88-89 attributed the palace construction to the late 3rd century; not to the initial foundation of the city in the 290s).
- 35 Schmid 2000a.
- 36 Akamatis 2000, 17-20 and 219-220. Both wells included coins of Antigonos Gonatos and the later well included a Rhodian amphora stamp of the eponym Onasandros (dated by Finkielsztejn 2001, 191 to c. 219 BC).
- 37 Tekkok 2000; Lawall 1999, 191; Berlin 1999, 146-147; Aylward 1999, 175-176.
- 38 See note 11 above concerning the Chian chronology and the Eretrian evidence. This paper was not able to take account of E. Schönenberger and M. Palaczyk's study of amphora stamps at Eretria, now fully presented in *Eretria* XII.
- 39 Harris 1941, 156, fig. 1 and 158 for discussion of coins from the interim period; Grace 1953, 119, note 7 accepting but downplaying the presence of stamps dating after 146 at Corinth; Williams 1978, 21-23 lists the inventory numbers, but not the names, for Knidian stamps dated by Grace to the interim period; for general discussions see Wiseman 1979, 491-496; Romano 1993, 12-13; Romano 1994; *Corinth* XVIII.1, 4; and Walbank 1997 and 2002.
- 40 Cf. Finkielsztejn 2001, 41; Empereur 1990, 202; Grace 1985, 19 note 46; Grace 1974, 198 note 21. The potentially problematic archaeological circumstances of these stamps are not mentioned in print but are discussed in detail in Grace's files. Rotroff's (1988) discussion of the need to distinguish true construction fill from later fills – problematic in that case even in the context of a rigorously controlled and recorded excavation – should signal ample warning for anyone placing much dependence on the Stoa of Philip material especially given the complex architectural history of this building (see Vallois 1923, esp. 154-166 for evidence for the dates of construction activity).
- 41 Bruneau 1980; cf. Marcadé 1954 and Grace & Savvatianou-Petropoulakou 1970, 366.
- 42 For a recent discussion of stamps from Carthage along with references to earlier research and lists of names, see Jöhrens 1999.
- 43 These dates follow Finkielsztejn 2001. There is considerable debate over the impact of Jewish law on daily lives especially in the wake of the Hasmonean expulsion of the Seleucid garrison from Jerusalem and following the various conquests of John Hyrcanus, see Finkielsztejn 2001 and 1999; Ariel 1999 and 1990; Cohen 1999, especially 110-119; Gruen 1998, 1-40; on the difficulties of the archaeology of Jewish laws on purity see Wright 1997. Events surrounding Marissa have been long debated from the standpoint of the scanty textual evidence (e.g., Rappaport 1969, Goldstein 1989, Kasher 1990), and Finkielsztejn's (1998a) and Barag's (1992-3) enlistment of archaeological evidence considerably reduced the remaining uncertainties (Sartre 2001, 389-390; cf. Kloner 2001).
- 44 Athens: *Agora* XXIX, 34-36; Rotroff 2000; Vogeikoff-Brogan 2000; Ilion: Hayes 1995; Tekkok-Biçken 1996; Eretria: Schmid 2000b; Halae: Coleman 1992, 276; Carr 1992, 282; Coleman et al. 1999, 310-313; there is also an early 1st century destruction at Pella (Akamatis 1993 and 1989; Chysostomou 1996-97). Athens provides so

far the widest range of deposits of this period; however, many of these were not actually closed until some years after the sack by Sulla (see discussion in *Agora* XXIX, 35-36; Vogeikoff-Brogan 2000, 295-296).

- 45 For Porticello, see Eiseman & Ridgway 1987; Gill 1987; Parker 1992; Lawall 1998; Monachov 1999a; Gibbins 2001 (though note that if Gibbins accepts the date I suggested for the Tektas Burnu shipwreck and the date for the Halonessos wreck based in part on my discussions of Mendean chronology, it is difficult to understand his acceptance of Gill's early date for Porticello). For El Sec, see Arribas et al. 1987 and Rouillard & Villanueva-Puig 1989; Parker 1992; Morel 2000, 13. In my discussion of this wreck below I treat the material as a single wrecked cargo, but the reader should bear in mind the possibility (raised but ultimately rejected by Morel, see discussion in Rouillard & Villanueva-Puig 1989, 138-141 and Morel 2000, 13) of multiple wrecks at or near the same site.
- 46 There are numerous descriptions of the wreck, the ship and its cargo; particularly useful are the first two preliminary reports in *Expedition* (Katzev 1969 and 1970a). Note that the latest coin might not have been minted until the early 290s; there is no external reason for dating the ship c. 300: the 290s or even early 280s seem possible.
- 47 Grace 1986; Pulak & Townsend 1987, 43-49; Koehler & Wallace 1987, 49; Empereur & Tuna 1988; Gibbins (2001, 302) writes "other pottery shows that the wreck is too late [suggestions going as late as c. 275]." According to Empereur and Tuna, the date of the wreck is unknown pending the study of the other pottery; however the only closely dated fineware on the wreck, a west slope style kantharos, may be simply somewhat older than the main cargo. The Thasian jar stamped with Pythion V may date to c. 310-300 by Debidour's new style chronology published in 1986; however the downdating of the transition to new style stamps from c. 345-340 (Debidour) to c. 330-325 (Garlan) may place Pythion V nearer to 285; Avram 1996, 54 places Pythion V at 280. This singleton in the cargo, however, need not have been "new" when the ship sank and the cargo of Zenon-group jars from the Datça peninsula holds the key to the wreck's date of sinking. Although a full study of these jars and their stamps does not exist, it should be noted that the stamps on the wreck very closely resemble a significant group found at Koroni: the abbreviation ZH (Zenon?) with a second abbreviation. Given that the Rhodian and Thasian jars at Koroni are now dated c. 260s, it seems very unlikely that these "Zenon" jars should be earlier to any significant degree. Grace's card files include at least eleven "eponym" abbreviations accompanying ZH, and many of these were also reported by Empereur and Tuna from the Muhaltepe Sophanes workshop site (1988, 352-357). With this limited number of eponyms showing duplicates even with a relatively small number of known examples, the span of the practice must have been fairly limited. Given that the Koroni Zenon eponyms are no later than 261 and admitting the possibility of ZH-FIL being 15 years earlier, the wreck would date near 275. It seems more likely, however, that both the Serçe stamps and the Koroni stamps are somewhere within the series rather than at its extreme ends, hence a date for the wreck somewhere between the late 270s and the mid 260s. The earlier dates for the other finds on the wreck militate against a post-Koroni date.
- 48 The only later Hellenistic wrecks explored and published with any thoroughness are from the western Mediterranean and only include isolated Aegean amphora types. While such associations between western Mediterranean amphora types and Aegean types are useful for establishing the chronology of the former, they

- have played little role in the study of Aegean chronologies. Wrecks including stamped Rhodian jars include Apollonia B, Grand Congloué 1, and Lazaret; wrecks with Aegean amphoras but without stamped jars include Capo Graziano A, La Chrétienne C, Marzamemi G, Pozzino, San Ferreol, and Spargi. For thorough references and summary discussions of these and others, see Parker 1992 and Gibbins 2001.
- 49 I have not seen the primary publication of this site, only the summary provided by Parker 1992, no. 48. For the career of Drakontidas, see Finkielsztejn 2001, 135-136.
- 50 For Ariston as a period III eponym and fabricant, see Börker & Burow 1998, and for the date of the eponym, see Finkielsztejn 2001, 192.
- 51 Grace 1946, 31.
- 52 Grace 1956, 122-123; cf. Garlan 1999a, 39 and 49.
- 53 See Lawall 2001b and 2002a for this developing argument.
- 54 Grace & Savvatianou-Petropoulakou 1970, 322. Knidos may have surrendered peacefully to Mithridates in 89 or 88 (assumed by Magie 1950, 215); according to Plutarch (*Luc.*, 3.3) Lucullus had to persuade (*epeise*) the Knidians to assist the Romans against Mithridates, implying an earlier allegiance to the king. Appian's (*Mith.*, 23) list of unusually cruel treatments of Italians and Romans in 88 BC in response to Mithridates' order does not mention Knidos; however, it does seem reasonable to assume that Italians and Romans were killed there as well. Since the *andres* (*duoviri*) are all Greek there is no certainty either in their being killed during the massacres of 88, or in the cessation of Knidian amphora production at this time. If we could assume that Mithridates' order was meant to eradicate systems of tax collection and fiscal exploitation – an assumption persuasively refuted by R.M. Kallet-Marx (1995, 153-158) – then it might be possible to expand the violence to include local, non-Italian “collaborators”. Recent debate as to the date of Mithridates' order to kill all Romans and Italians is presented by Kallet-Marx (1995, 154 with note 108); he prefers the traditional date of 88 instead of 89 BC.
- 55 Lawall 2002a.
- 56 This is not to doubt that the “Andres” are magistrates related to the Roman provincial administration (though the names are all Greek); the point is that 108 is not a historically fixed point. For the *terminus ante quem* of 100 BC for Knidian membership in the province of Asia, see most recently, Crawford (ed.) 1996, Law 12. Although including extensive discussion of the praetors and brief mention of quaestors (especially Knidos copy column IV, lines 40-42) in Asia including collection of taxes, there is no mention of local *duoviri*. Jefremov 1995, 59-60 discusses the wide-ranging roles of *duoviri* in better known contexts.
- 57 It is important to note, however, that Grace's explanation for the dates 108-88/86 do vary through the course of her publications, see Grace 1956, 150 where the destruction of Delos in 88 is the point of reference; in Grace & Savvatianou-Petropoulakou 1970, 322 the events reconstructed at Knidos in 88 and 85 (see below) are the points of reference along with secondary reference to Sullan contexts in Athens.
- 58 Siebert 2001, 134-141; and 1988, especially p. 761. The two eponyms from the abandoned storeroom itself are Hermophantos and Agia. For Hermophantos, who also appears twice in other fills on the floor in the same house, see Grace & Savvatianou-Petropoulakou 1970, 322 and E198, and Grace 1985, 33 queried as period VIB, i.e., before 86. For Agia, appearing twice in the storeroom, see

Grace & Savvatiadou-Petropoulakou 1970, E81, there dated before 86. Siebert accepts Empereur's (unpublished) discussion of the dates of this material with the Knidian stamps dating no later than 78 BC; however, such a date is presumably dependent on Grace's assumptions about Knidian production during the period of Mithridates' aggressions. Various recent studies of building sequences on Delos have struggled with the distinction between 88 and 69 as the dates of major destructions and abandonments: for examples, see Brun 1999, Brun & Brunet 1997; Le Dinahet-Couilloud 1997; Hatzidakis 1997. Not surprisingly, all of these studies use Grace's dating scheme for the Knidian stamps despite the potential difficulties just noted. Jefremov 1995, 76-80 places the *duoviri* between 115 and 88 assuming extensive economic collapse in Asia Minor after 88. He dates Hermophantos near 100, an even more unlikely date in terms of the Delian evidence.

- 59 Of the main three deposits cited as Sullan sack contexts by Grace & Savvatiadou-Petropoulakou 1970, 321, only M20:1 is considered fully pre-Sullan by Rotroff (*Agora* XXIX, 35) the other two, F19:3 and T27:1, are considered to include even late 1st century material (*Agora* XXIX, 36).
- 60 Debidour 1999 in fact uses the large number of stamps of Kleitos found at Pontic sites to argue for an earlier date for this name; for another recent comment on the drop in Thasian exports to the Black Sea, see Lazarov 1999, 196 placing the decline c. 300 BC.
- 61 The exception is the use of c. 275 for the abandonment of Seuthopolis; this date is based in part on numismatic evidence and on the dates of the amphora stamps (see Dimitrov, Čičikova & Balkanska 1984 and Dimitrov & Penčev 1984). For the vast range of Pontic contexts providing indications of *relative* order of the names, see Avram 1996 and Garlan 1999a; Lungu 1999 also provides important discussion of synchronisms requiring the near-contemporaneity of different Thasian names. For the *absolute* dates of the series these same authors turn to the Aegean or, quite often to associated Sinopean stamps, for which the absolute chronology remains a topic of considerable disagreement (Conovici 1998; the chart published by Fedoseev 1992, 149; cf. Fedoseev 1994 exemplify the range of difference of opinion).
- 62 Grace 1946.
- 63 These deposits have never been published in detail. They are summarized in *Agora* XII; D19:1 is mentioned by Rodney Young (Cistern in the area of Houses N and O, Young 1951, 253) and Moore published two red-figure fragments (*Agora* XXX, nos. 414 and 1653); J13-14:1 is mentioned in a footnote by T. Leslie Shear Jr. (1970, 191 note 59).
- 64 Garlan 1999a, no. 205; and see Avram 1996, 51, table 1. Grace (1956, 126) also mentions a stamp of Aristeides (SS1498) as being from an "early 4th century context." The context in question is a pocket of fill on bedrock immediately below, and perhaps even mixed with, Byzantine fill (Section H notebook, May 1 1933, 28-29/E). The small size of this context along with the Byzantine presence so close by make it less useful for dating the Thasian series. More recently on this eponym, see Lungu 1999, 73-75, cf. Garlan 1999a, 47.
- 65 Grace 1946.
- 66 Grace 1956, 123 with reference to Pouilloux's manuscript ahead of its publication in 1954 (the issue of Macedonian control of Thasos is addressed especially at pp. 431-434); see more recently Picard 1985 and 1997.

- 67 Talcott, Philippaki, Edwards & Grace 1956, 6; and more recently Rotroff & Camp 1996, 275. Note that in 1970 Grace wrote that Pnyx III is “dated by a quantity of Attic figured ware” (Grace & Savvatianou-Petropoulakou 1970, 355).
- 68 Talcott, Philippaki, Edwards & Grace 1956, 6.
- 69 Shear 1975; information on Grace’s thought on this deposit come from reports filed in the Agora archives’ deposit notebooks.
- 70 This development in Grace’s thinking on the topic is made explicit in an unpublished report dated 27.viii.74, p. 7.
- 71 Grace 1985, 4-5 and 18 note 43.
- 72 Thompson & Scranton 1943; in the initial publication by Thompson and Kourouniotes (1932), the third phase was assigned to the Hadrianic period (see below).
- 73 Avram 1996, 24, note 48 (referring to Romano 1985) and 28, note 72 (referring to Thompson 1982).
- 74 Vanderpool, McCredie & Steinberg 1961, nos. 87-89, 95-97, 104-108.
- 75 A similar date has been proposed for the Rhodian stamps at Koroni, see Finkielsztejn 2001, 184.
- 76 Garlan 1993, 169, see his lists in the middle of the page. Names there in parentheses are not found at Kounouphia but for other reasons belong in the sequence. The eponym Pheidippos belongs to the rhyton group as do the Koroni eponyms Demalkes and Idnades, but it does not appear either at Koroni or at Kounouphia and is therefore assumed to be later than Koroni.
- 77 Debidour 1986, 330-332. The figure of 39 includes all of Groups I and II except Kleitos (now argued to be placed among the old style eponym, see Debidour 1999), all of III except Megakleides (at Kounouphia), and Thespon, Kephisophon, Kratinos, and Menedemos from group IV, and Aischron I from the genitive group.
- 78 Debidour 1986, 332
- 79 Garlan 1993, 169 places Kychris, Pythion VI, Satyros I, Philiskos and Chaireas before Koroni; Avram 1996, 30-31 and 1999, 218 includes Aristophon II and Autokrates (not on Debidour’s list) as being before Koroni.
- 80 Schmid 2000a.
- 81 Avram 1996, 26: Amphandros, Argeios, Aristophanes II, Eraton, Hegisiteles, Herophantos, Hegisipolis, Kleophon III, Philisteides, Polykrates, Polytimos, Polyon, Satyros II, Satyros III; in the same lists Avram includes Evagoras, now shown to be pre-Koroni, see above. For Koukos, see Garlan 1979; for Vamvouri Ammoudia see Garlan 1986, 203-220; for the Silen Gate material, see Debidour 1979, 300-302, for group BA, see Garlan 1993, 170-174.
- 82 These deposits are mentioned by Garlan (1999a, 135), who asserts that they must date to the early 4th century. And yet, if chronology is the issue, and especially since these very deposits were fundamental to the early development of the Thasian absolute chronology, assertions as to their dates simply do not suffice; hence the remainder of this section.
- 83 Agora excavation notebook for section NN (there referred to as cistern in House H), pages 2676 and 2679-2681; no section drawings of the fill exist nor were any photographs taken once the cistern was emptied.
- 84 For the shift to marble working in this area, see Young 1951 as follows: House D, second phase, pp. 221-222; House H, p. 229, only slightly excavated but also showing debris from marble working in 4th century levels; House G, especially

- pp. 235-236 for the 4th century marble working phase; House K, esp. pp. 243-244.
- 85 NN notebook page 3142.
- 86 The lamp from the upper fill is L4013, from the lower fill L4024; for type 23 C, see *Agora IV*.
- 87 On the Q-painter, see Beazley 1940-44; Ure 1943; Paul-Zinserling 1994; Geyer (ed.) 1996. The komast dancer is paralleled on the exterior of a stemmed cup from Spina tomb 893 dated to the second quarter of the 4th century (Curti 2001, 151-152, pl. 102, no. 6), and Spina tomb 862 of the same general date on a tondo (Curti 2001, 150-151, pl. 101, no. 4). Note that since this fragment was only found in the context pottery tin there is no surviving evidence for the level of its findspot in the fill. The latest previously published red-figure from this deposit was dated to the late 5th century (*Agora XXX*, no. 414).
- 88 For hastily impressed ovules as the forerunner of rouletting, see *Agora XII*, 30.
- 89 On the Fat Boy group, see Sabbatini 2000; a close parallel for the palmette decoration of the fragment from D19:1 is provided by a fragment from Lattes from a context of c. 375 (Py and Sabbatini 2000, 196, fig. 35.10); for the Eros see *Agora XXX*, nos. 762 and 763 both dated to the early 4th century and from Lattes from a context of 400-375 (Py & Sabbatini 2000, 185-186, fig. 17.2).
- 90 *Agora* excavation notebook for section Q pages 1030, 1039, 1224 and 1307. A note in the excavation notebook (p. 1225) quotes Brian Sparkes' opinion that the fineware pottery here dated to the late 5th century.
- 91 *Agora XXV*, 50, nos. 144-145.
- 92 *Agora IV*, type 24 A' (L1005).
- 93 *Agora XXX*, no. 1178 (P2248), there dated to the early 4th century.
- 94 Publications of these deposits especially relevant to the following discussion are as follows: R13:4, Talcott 1935, Lawall 1995 and 2000; R11:3, *Agora XXVII*, 139, 170, and 232 (with correction to *Agora XII*, 398), and Lawall 1995; U13:1, Shear 1975, 355-361, Lawall 1998, 20 fig. 5 and 2000; H12:11, *Agora XII*; R13:11, *Agora XII*; B12:5, *Agora XII*; S19:3 "Coroplast's Dump", see Thompson 1952, 120-164, esp. 121-122; H17:5, Corbett 1955, 185, no. 25 and *Agora XII*.
- 95 Alonnesos, see Hadjidakis 1996 and 1997; for Porticello, see Eiseman & Ridgeway 1987, Gill 1987, Lawall 1998; El Sec see Cerdá 1987 and 1989, Trias 1987 and 1989, and discussion published in Rouillard & Villanueva-Puig 1989. For the bothros at Halikarnassos, see *Halikarnassos VII*, 82-97, and for Olynthos, see Robinson 1950.
- 96 Oakley & Rotroff 1992, 53-57.
- 97 *Agora XXVII*, 140-141.
- 98 Hadjidaki 1996, 590 for the date of the Alonnesos wreck.
- 99 The jar is published by Cerdá (photograph and drawing are published in 1987, pl. 13, no. 627; pp. 469-470, fig. 126) and compared with the Porticello Mendean amphoras. The discrepancy between the photograph and the drawing seems too great to be accounted for by distortion from the camera lens.
- 100 *Halikarnassos VII*, A84, from Bothros A. I am very grateful to V. Nørskov for sending me an illustration of this fragment in advance of the publication of *Halikarnassos VII*; for the start of construction in the 360s, see pp. 72-73.
- 101 For difficulties in the chronological arrangement of Classical black-glaze pottery, see comments in *Agora XII*, 27 and Corbett 1949, 301.

- 102 The comparison was made by Eiseman & Ridgeway 1987, 28 but the pieces in question from U13:1 were not illustrated in Shear's (1975) preliminary report.
- 103 Eiseman and Ridgeway 1987, G7, figs. 3.5 and 3.6; a similar cup skyphos comes from U13:1 (P30420, Shear 1975, 358 note 53, pl. 80g); unfortunately without preserved interior decoration. In my earlier discussion of the date of the Porticello wreck, I argued for an early 4th century date on the basis of the amphoras alone and left open the possibility that the bolsals could be much earlier. On further consideration of the U13:1 bolsals and the advent of proto-rouletting, even the finewares on the Porticello wreck seem entirely compatible with a date in the early 4th century (see above). While similar bolsal decoration is published from the Rhenia pit, two points should be taken into consideration: 1) there is post-426 pottery among that material according to the original publication (Dugas & Beazley 1952, 3, though he notes that the complete vessels are more likely attributed to c. 426), and 2) the U13:1 evidence indicates that the Porticello bolsals *can* date as late as the early 4th century even if the decorative scheme began to be used earlier, and this later date fits the constraints provided by the amphoras and the cup-skyphos with proto-rouletting. Neither Eiseman nor Gill draw attention to the proto-rouletting on the cup skyphos, yet this feature is as important as the bolsal forms for the date of the wreck.
- 104 This statement is based both on the inventoried and non-inventoried pottery from this deposit.
- 105 *Agora* XII, 384 with list of catalogued pieces from this deposit. Rouletting appears on bolsals and other forms at Lattes in contexts dated c. 375-350, see Py & Sabattini 2001, 173-178.
- 106 For the bolsals from Olynthos, see Robinson 1950, plates 207-215; the rouletted bolsal is no. 654, pl. 208.
- 107 For discussion of the El Sec bolsals, see Cerdá 1989, 54 and 69. The red-figure pottery from El Sec also has close parallels at Olynthos, see Trias 1987, 62 (Black Thyrsos painter), 86 (Group of Vienna 116), 111 (Fat Boy Group); 1989, esp. 33-37 and B. Shefton's comments in Rouillard & Villanueva-Puig 1989, 135.
- 108 Amphora types N (certain examples), G and R in particular from the El Sec wreck do not appear in Athenian Agora deposits until the very end of the 4th century, so a date perhaps even some decades after 340 may be necessary. For suggestions as to the dates of the Corinthian and Adriatic amphoras, see Koehler's comments in Rouillard & Villanueva-Puig 1989, 132 where the Adriatic amphoras are suggested to date near the mid 4th century and the Corinthian amphoras earlier in the 4th century.
- 109 SS1723; Garlan 1999a, no. 322.
- 110 SS367: Kleoph(anes) (fabricant) with star (eponym symbol) and shell (device) = Garlan 1999a, no. 615, is from the uppermost layer at H17:5; SS368: Chairimenes (fabricant), phiale (eponym symbol), lance (device) = Garlan 1999a, no. 598; and SS369 Kalliphon (fabricant), star (eponym symbol), and pole(device) = Garlan 1999a, no. 614 are both from the cobbled surface under the dirt fill containing SS367.
- 111 Fixed points for Attic red figure and black glaze are discussed by Curti 2001, 23-36; Sabetai 1993, 218-221; Sparkes 1991, 28-59; Burn 1987, 7-13; MacDonald 1979, 29-44; and Morel 2000, 13-14, and a convenient bibliography is provided by Campenon 1994, 14.

- 112 The excavation records vary in detail: for the early excavation in the Assembly area (Dec. 1930 through mid March 1931, Thompson drew and recorded findspot information for many diagnostic sherds, loomweights, coins and other finds; for later March through June 1931 and October-November 1932 records of findspots for individual objects appear less often. Detailed records reappear for the 1936 excavations of the region around the Assembly area per se. The amphora handle catalogue cards no longer comprise a complete set, so some handles are only recorded in the notebooks, some only on the cards, and some are not recorded anywhere apart from Grace's publication. I have been unable to find Grace's working files on the Pnyx material apart from a folder of correspondence immediately preceding the publication, so there are some remaining uncertainties as to why Grace thought certain stamps were to be attributed to the period III fill and others not. The handles themselves are stored at the Stoa of Attalos as is the other published, and dramatically edited unpublished, pottery.
- 113 This particular handle is mentioned by Rotroff (1996, 291) as intrusive.
- 114 Despite being excavated in 1931, there is no record of this quite worn stamp in the notebooks of that year, so its precise findspot is unknown.
- 115 The restoration is based on review of Grace's collection of images of Thasian stamps with this alabastron device. While much of this material remains unpublished, an example of the stamp of Chaireas with alabastron is found in Avram 1996, no. 452.
- 116 Avram 1996, 28 note 73 recognizes the uncertainty of this eponym's inclusion in the Pnyx III fill.
- 117 Note that Panphaes is spelled as Pamphaes (a fabricant name) in Grace 1956, no. 46, but the letter in question does appear more like an N on the stamp; see Garlan 1999a, no. 730.
- 118 Note that although Garlan and Avram agree on the later date for the transition, their respective lists of old style names differ significantly in terms of the relative sequence. Therefore, by Avram's sequence the latest Pnyx III eponyms are Baton and Megon II, whom he places at 346 and 345.
- 119 According to lists compiled by Grace there are seven old-style Thasian stamps in the Middle Stoa fill and four in the Stoa of Attalos fill. The earlier amphora-rich, even Thasian-rich, fill of Q10:1 did not include any old-style stamps.
- 120 For the Roman pottery, much of which is dated now to the 3rd century AD, I am fully convinced by Rotroff's interpretation of Thompson's sketch showing a change in fill near the retaining wall as indicative of post-Herulian attempts at stone robbing (Rotroff & Camp 1996, 269-270, plate 78f).
- 121 Beazley 1940-44, 19, note 2; Rotroff & Camp 1996, 275; Rotroff 1996, 39
- 122 Landolfi 2000 and, especially for the dates, see Landolfi 1996, 32-33.
- 123 There is no standard against which to judge the relative preservation of these sherds. Many red-figure pieces from the Persian sack wells (primary deposits) are complete or nearly so; most of the material in *Agora* XXX, however, is comprised of quite small fragments (as noted *Agora* XXX, 1). A detailed comparison of preservation among different sorts of deposits in terms of finewares and coarsewares would be quite valuable for allowing further interpretation of the state of preservation of these classes of artifact.
- 124 Rotroff & Camp 1996, 276 and 278 with fig. 7.2-3.
- 125 *Agora* IV, especially p. 74 with reference to type 25B' and its absence from Olynthos; Rotroff & Camp 1996, 275 and 277; Rotroff 1996, 39-40.

- 126 For selective importation and then imitation of Attic forms in the Troad in a limited period of time, see Berlin & Lynch 2003, 172-174.
- 127 Davidson & Thompson 1943, 73-79 emphasizes the dominance of pyramidal weights in the Pnyx III fill as compared with the dominance of conical weights in later fills.
- 128 The most often discussed coins from the Pnyx III fill were published by Kourouniotes & Thompson 1932, 211-213; see too Davidson & Thompson 1943, 14-27.
- 129 For discussion of the relevant bronze types see, *Agora* XXVI, 9, 31, 41-42; Rotroff 1996, 40; Rotroff & Camp 1996, 275. Extant documentation of other coins related to the date of the Pnyx III fill reveals further difficulties: Kourouniotes & Thompson 1932, 211, no. 2 was found 0.45 m deep, 20 m from the large retaining wall, a noticeably disturbed area of the fill. The coin of Salamis from trench A (Kourouniotes & Thompson 1932, 212 no. 8) is from 0.8 m depth, 5.0 m from the wall, i.e., also from a problematic fill.
- 130 Thompson & Scranton 1943, 333; Lauter-Bufe & Lauter 1971 for houses elsewhere not far from the Pnyx, unfortunately without publication of accompanying artifacts.
- 131 On the nature of the ceramic material in the fill, see Rotroff & Camp 1996, 276; the presence of pottery workshop debris may be in keeping with debris from an essentially domestic quarter. The figurines and saucers may be debris from nearby shrines (Davidson & Thompson 1943; Rotroff & Camp 1996, 276).
- 132 Thompson 1982, 145 note 40 uses the date of 345; Fisher (2001, 217-218) uses the date of 347/346.
- 133 Rotroff & Camp 1996, 271-275.
- 134 The date of the early 260s depends on the amphora stamp of fabricant Euphron and (restored) eponym Agrios (Grace 1956, no. 70; unfortunately no primary documentation exists as to the findspot of this stamp so there is no possibility of confirming its association with the construction packing of the wall), dated by Finkielsztejn (2001, 188) to c. 265. Such a date calls into question Romano's date c. 280 for the Compartment wall (Romano 1985, 452-453). The date of c. 265 for Agrios is rendered impossible by the fact that it would have this stretch of the city's fortification being built during or after the siege by Antigonos Gonatus in the Chremonidean war (starting in 267). That Agrios is not much earlier, however, is indicated by his presence at Koroni. For the date of the stoas overlooking the Pnyx, see Thompson and Scranton 1943, 293-294. Thompson only published three fragments (p. 294 fig. 15a-c) and the precise findspots of these are not indicated. The fourth fragment (d) is from the Compartment wall fill (p. 334, note 56), but this tall-stemmed kantharos is an unusual form and the date of the Compartment wall is the primary evidence for its date (see *Agora* XXIX, 88 note 16). While Thompson and Scranton (1943, 293-294, 333-334) describe many contexts from which datable pottery was studied, very few sherds were inventoried from these particular contexts and all uninventoried pottery from the excavations of these stoas and the city wall was discarded.
- 135 Conovici 1998, 21-23 for the relative position of Endemos and 50-51 for the absolute chronology; Fedoseev 1999, 30 places Endemos at 375 B.C.; Fedoseev 1992, 159, starts consistent Sinopean stamping in the 360s and this chronology is followed by Monachov 1999a, 379.