

# EARLY EXCAVATIONS AT PERGAMON AND THE CHRONOLOGY OF RHODIAN AMPHORA STAMPS

## ABSTRACT

The chronology of Rhodian amphora stamps depends heavily on a collection of roughly 900 stamps found at Pergamon in 1886, known as the Pergamon Deposit. Most of the Rhodian eponyms in this group are dated to ca. 210–175 B.C. Two points of historical interpretation are fundamental to these dates: good relations between Rhodes and Pergamon at that time, and Rhodian garrisoning of Knidos between 188 and 167. Neither interpretation, however, withstands scrutiny. The archaeological and topographic contexts of the Pergamon Deposit, hitherto ignored, are used here to argue for a closing date in the late 160s or early 150s, and the wider implications for Hellenistic ceramic chronologies are explored.

The recent, revised publication of the so-called Pergamon Deposit, an influential collection of Hellenistic stamped amphora handles, prompted the present reconsideration of the deposit's role in the study of amphora stamps, their chronology, and the study of ancient trade. Christoph Börker and Johannes Burow's *Die hellenistischen Amphorenstempel aus Pergamon* (PF 11) included, as Börker's half of the volume, a new publication of the collection, which was first published by Carl Schuchhardt in 1895.<sup>1</sup> Soon after Schuchhardt's publication, the deposit proved to be of considerable importance for developing the chronology, first, for Rhodian stamped

1. Börker 1998; Schuchhardt 1895. The present article expands on an idea first articulated in my review of PF 11 for *Bonner Jahrbücher* (Lawall 2002). An important source of research has been the unpublished notes of Virginia Grace. These files are currently stored at the Agora excavation offices in the Stoa of Attalos. I thank Carolyn Koehler for permitting unlimited access to these files and for fruitful discussions about their contents. Susan Rotroff graciously read and critiqued earlier

drafts, and I hope this final product repays her efforts. I also thank Gérald Finkielsztein for allowing me use of his unpublished dissertation for the preparation of this article while his 2001 book was in preparation. I am particularly grateful to Kathleen Slane and *Hesperia's* anonymous reviewers for saving this work from many errors. The Faculty of Arts at the University of Manitoba provided generous research support.

The following reconsideration of

the Pergamon Deposit is based on a review of published reports and on personal observation of the topography in July 2000. I thank my traveling companions, William Aylward and Andrea Berlin, who endured the entire argument while we hiked up the Pergamon acropolis. All references to stamps here indicate stamps on the handles of amphoras rather than tiles, loomweights, black-glaze finewares, or other coarsewares.

amphora handles and, later, for Knidian stamped handles. These stamp chronologies have become fundamental building blocks for most other Hellenistic pottery chronologies.<sup>2</sup>

Furthermore, historians of ancient politics and trade often cite this deposit as part of a larger discussion. For example, M. I. Rostovtzeff in 1941 wrote:

The [Pergamon Deposit] testifies in all probability to close commercial relations between Pergamon and Rhodes in the years between 220 and 180 B.C. (approximately). . . . After 180 B.C. Pergamon probably emancipated itself from Rhodes and may have organized its commerce on different lines.<sup>3</sup>

Rostovtzeff's influence is clear in R. M. Berthold's more recent use of the deposit:

It also appears that trade between the two countries broke off at this time, as Rhodian handles from the period 220–180 are found in overwhelming numbers in Pergamon [i.e., the Pergamon Deposit], while those dated after about 180 are completely absent from the deposits. The reasons behind this break were undoubtedly basically economic and probably represent an emancipation of Pergamene commerce from Rhodian domination, but the deterioration of economic and political relations between the two states is clearly more than coincidental.<sup>4</sup>

While Berthold's reference to an absence of Rhodian stamps dating after 180 is incorrect,<sup>5</sup> his comments make clear that the implications of this deposit go far beyond either the narrower field of Hellenistic amphora chronologies or the archaeology of Pergamon per se.

Börker's new publication reviews the stamps themselves in the deposit in considerable detail.<sup>6</sup> Far less attention is paid to the deposit's findspot (Fig. 1), its role in Hellenistic economic history, or to the ways in which the deposit has figured in archaeological discourse over the past century. Börker begins by largely repeating Schuchhardt's very brief description of where the stamped handles were found.<sup>7</sup> After further discussion of the composition of the deposit (giving ranges of dates for different types, noting unusually early or late pieces, and assessing the preservation of the fragments), Börker makes a very important and tantalizing observation. He proposes that the deposit might have resulted from the clearing of a storeroom. After some unknown period, the debris was then dumped into the area where it was excavated in 1886.<sup>8</sup> Exploration of this scenario leads, here, to a complete reconsideration of the scholarly history of the deposit, the historical context of Pergamon in the late 3rd and 2nd centuries, and the archaeological context of the deposit itself. Detailed attention to one group of amphora handles and their small findspot on the Pergamene acropolis is justified by the immense analytical weight placed on this deposit by scholars of Hellenistic pottery, architecture, and economic history.

My reconsideration of this deposit has three parts. First, scholars' use of the deposit over the last century helps explain the current status of the

2. See, for example, *Agora* XXII, pp. 96–110, and *Agora* XXIX, pp. 431–473, where the dates of the deposits underlying the Athenian Agora chronology are based in large part on the stamped handles. Similarly, see *Corinth* VII.3, pp. 206, 225, 230, 234. Schäfer (*PF* 2, p. 26) also notes the importance of stamped handles for Hellenistic pottery chronologies.

3. Rostovtzeff 1941, p. 1479, n. 68.

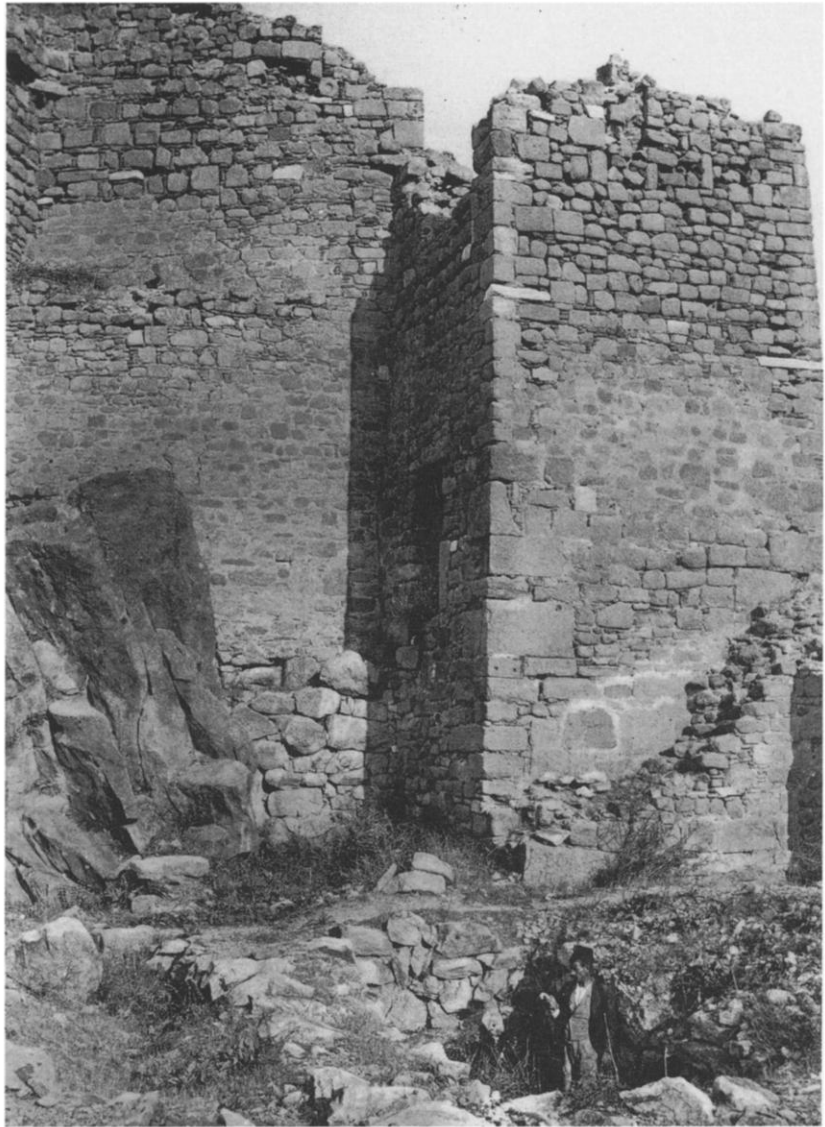
4. Berthold 1984, pp. 173–174, and more recently, Gabrielsen 1997, p. 67.

5. See Burow 1998, nos. 43, 44, 46, 47, 57–59, 90–92, 101, 108, 115, 116, etc.

6. Börker (1998, pp. 8–9, 13–14) largely upholds the traditional Rhodian chronology. He does (p. 14, n. 39) recognize the problem of period IV being 10–12 years too long but does not consider the possibility that period III stops too early (see below).

7. Börker 1998, p. 5.

8. Börker 1998, p. 9. Here, too, he notes that Rhodian imports to Pergamon did not simply cease at the close of the Pergamon Deposit (cf. Berthold 1984, pp. 173–174).



**Figure 1. Findspot of the Pergamon Deposit, with Turkish workman holding amphora handle. After *AvP* V.1, text pl. 20**

deposit in amphora studies (see “History of Research,” below). Since 1907 the consensus for the range of dates for the Rhodian eponyms in the deposit has been ca. 220–180 or 210–175 B.C. This consensus has recently been challenged in a series of works by Gérard Finkielsztein, who proposes a revised date of 193/0–163/1 B.C.<sup>9</sup> These competing theories can be evaluated by closely considering the two historical points on which the traditional chronology depended: 1) the existence of close and friendly Rhodian relations with Pergamon between ca. 220 and 180 B.C.; and 2) Rhodian control of Knidos between 188 and 167 B.C. Closer examination of the historical evidence (see “Rhodes, Pergamon, Knidos,” below) reveals serious weaknesses in these two long-accepted interpretations of the historical sources. Therefore, in the final stage of this reconsideration, I return to the archaeological and topographic setting of the deposit itself (see “Archaeological Context,” below), and propose a closing date in the 160s or 150s B.C., without dependence on these problematic historical conclusions.

9. Finkielsztein 1995, pp. 281–282; 2001, p. 175.

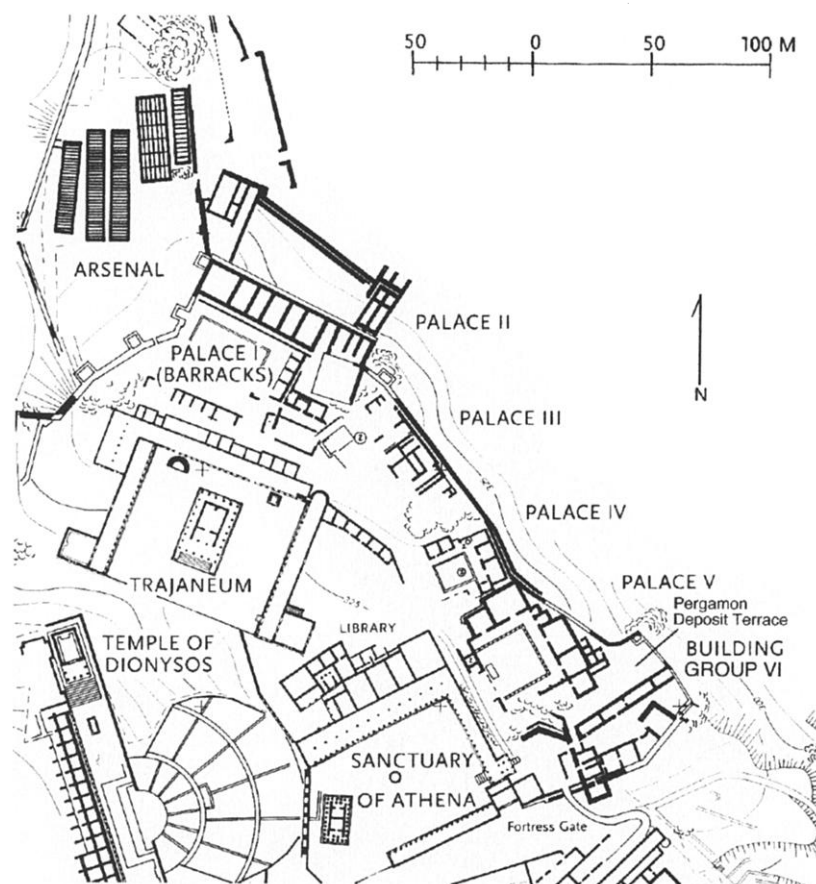


Figure 2. Plan of the citadel at Pergamon, showing the location of the deposit terrace. After Dreyfus and Schraudolph 1997, foldout plate

## HISTORY OF RESEARCH

The Pergamon Deposit was excavated in September 1886 (Fig. 1), and Schuchhardt published the stamped handles in 1895.<sup>10</sup> No other artifacts from the area have ever been mentioned or published.<sup>11</sup> Schuchhardt described the findspot, marked by a red cross on the plan in his publication, as lying between an earlier and later course of the city wall in the southeast corner of the acropolis (Figs. 2–3). The handles themselves were found as fill within the foundations of a stone building (referred to hereafter as

10. Schuchhardt received a stipend from the German Archaeological Institute in 1886 (Grünert 1987, p. 104). In February of that year, he arrived at Pergamon, where he seems to have met universal approval (Schulte 1963; Karl and Dörner 1989, pp. 91–97), distinguishing himself with his study of the water system of the city and the regional topography; he also worked at the nearby site of Aegae. After working with Dörpfeld in Athens in 1887, he went on to a distinguished career more focused on European prehistory (see Grünert 1987).

11. The discovery is mentioned

twice in an early preliminary report from the Pergamon campaign (Humann, Bohn, and Fränkel 1888), once by Carl Humann (p. 57: “an einer anderer Stelle fanden sich bis zu tausend abgebrochener Amphorenhenkel mit Stempeln. Schuchhardt kopierte sie sämtlich”; also quoted by Karl and Dörner 1989, p. 92), and in a more extended description by Richard Bohn (p. 67, see below). The find is not mentioned in the later preliminary report published in 1899, also covering the year of discovery (Conze and Schuchhardt 1899).

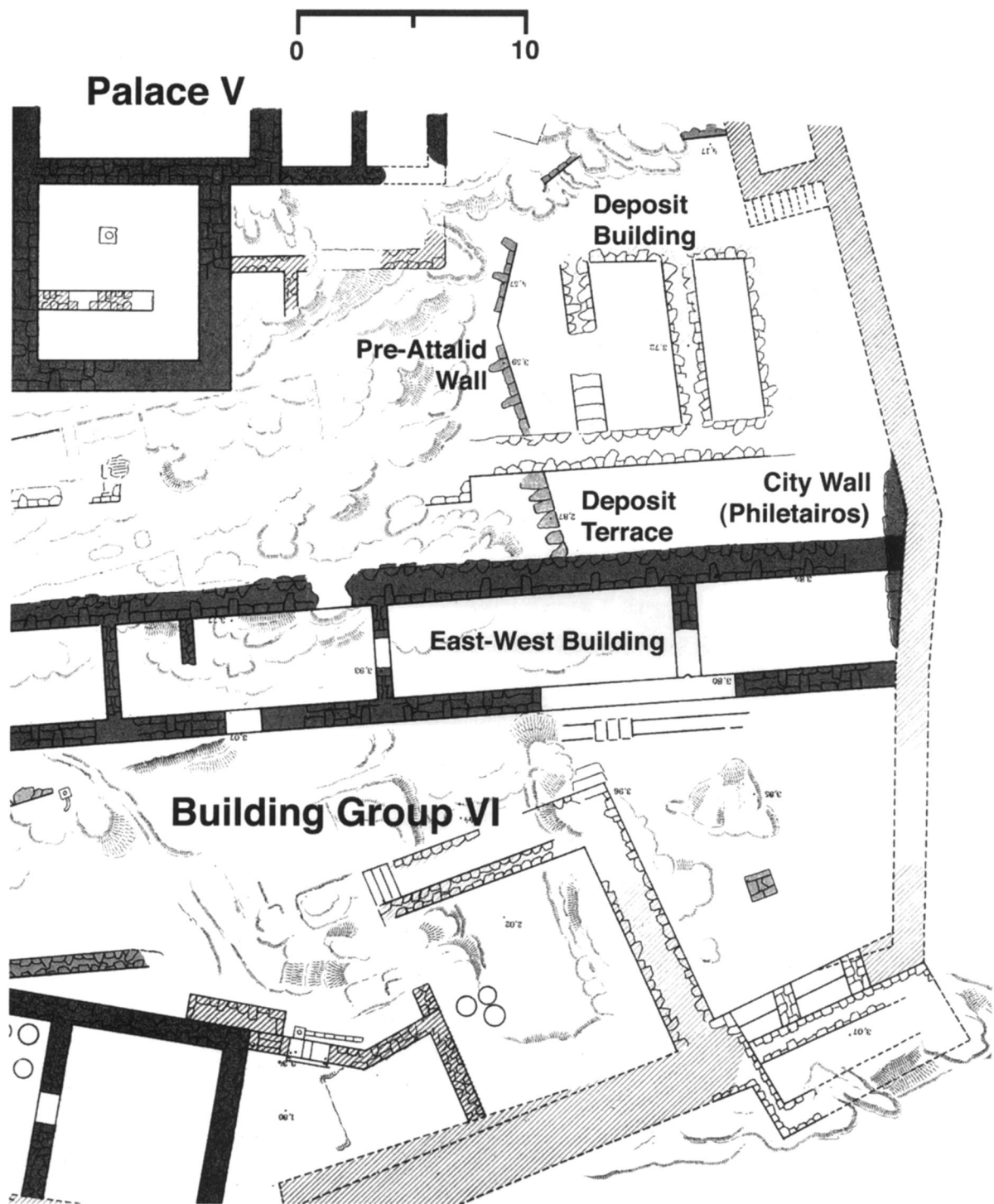


Figure 3. Detail of the area of the deposit and surrounding structures.

After *AvP* V.1, pl. 6

the “deposit building”).<sup>12</sup> The building was dated “spätestens aus dem 2. Jahrhundert v. Chr.”<sup>13</sup> Schuchhardt suggested that the reigns of Attalos I (241–197 B.C.) and Eumenes II (197–159 B.C.) were periods of close ties between Rhodes and Pergamon and, hence, could be expected to witness the intense trade attested by the deposit.<sup>14</sup>

References to the Pergamon Deposit that appeared soon after this initial publication add nothing further to our understanding of the archaeological context of the material but do begin to refine the range of dates suggested by Schuchhardt. In this regard, the first scholarly use of Schuchhardt’s publication is somewhat puzzling.<sup>15</sup> H. van Gelder, in his 1899 publication of inscriptions illustrating the Rhodian dialect, describes the deposit stamps as resulting largely from a single discovery and as belonging to the 2nd or 1st century B.C.<sup>16</sup> He does not elaborate upon or defend the proposal to extend the dates of the stamps into the 1st century. In a later article, however, he considers the date of the deposit in more detail (see below).

Schuchhardt’s publication was also quickly taken up by scholars with a secondary interest in the amphora stamps themselves. Karl Regling, in 1901, published a brief comment on the minting eponyms of Rhodes, in which he argues that these eponyms must not be priests of Helios since they never match the names on the amphora stamps.<sup>17</sup> The eponyms on the amphora stamps were assumed to be those of priests of Helios. Schuchhardt’s work is cited as only one of a few major publications of the amphora stamps.

Ferdinand Bleckmann, in a dissertation on Rhodian stamped amphoras published in 1907, followed Schuchhardt’s lead in dating the collection, repeating that the building in which the stamps were found dated to the 2nd century at the latest.<sup>18</sup> Bleckmann proposed that the 40 eponyms

12. Schuchhardt (1895, p. 423) described the deposit as follows: “In der südöstlichen Ecke der Hochburg (Gebäudegruppe VI), zwischen der alten ursprünglichen und der späteren weiter vorgerückten Burgmauer fand sich nämlich der ganze Innenraum zwischen den Grundmauern eines Gemaches vom Felsen her ausgefüllt mit Scherben von Amphoren.” Later (p. 434), Schuchhardt refers to the findspot as a “Hausfundamente in Gebäudegruppe VI.” Bohn’s description of the area, published in 1888, is similar but more focused on the surrounding architecture (Humann, Bohn, and Fränkel 1888, p. 67). The implications of Bohn’s report are considered below under “Archaeology of the Deposit.”

13. Schuchhardt (1895, p. 432) refers to Bohn, who served as the head architect of the German excavations at the time, as the source for this

date. Bohn himself did not discuss the date of this building in his preliminary report (Humann, Bohn, and Fränkel 1888, pp. 62–81).

14. Schuchhardt 1895, p. 432.

15. Gelder 1899 is the earliest consideration of Schuchhardt’s work I have found apart from reviews of the volume. The most extended contemporary review is by Keil (1896). Although raising numerous questions as to what to make of these amphora stamps, Keil adds nothing to the question of the date or archaeological context of the Pergamon Deposit. An anonymous reviewer (identified only as A.H., see H. 1896) notes the importance of the material published by Schuchhardt for the study of Pergamene trade, especially in terms of Rhodian wine. De Sanctis (1896–1897) devotes two sentences to Schuchhardt’s section of the volume—giving fulsome praise without substan-

tive comment. Reinach (1896, p. 223) is similarly favorable and concise in reviewing Schuchhardt’s contribution. Hiller von Gaertringen (1896, p. 59) and Pridik (1896, pp. 127–128) both note the appearance of the volume, but neither writer draws out the chronological utility of the material.

16. Gelder 1899, p. 570: “Alle, bis auf 17, stammen aus einem einheitlichen grossen Funde (Sept. 1886). Sie gehören dem 2. oder ersten vorchristlichen Jahrhundert an.”

17. Regling 1901, pp. 109–114. Nilsson (1909, p. 31, n. 1, citing Regling) notes the problems determining the stamp sequence since eponyms on coins, which might be placed in sequence by die links, are of no assistance.

18. Bleckmann 1907, p. 15: “domum, unde effossae sunt, saeculi II vel etiam aetatis paulo antiquioris esse affirmant viri harum rerum periti.”

present in Schuchhardt's publication should indicate a more specific range of absolute dates for the Rhodian eponyms in the Pergamon Deposit, 220 to 180 B.C. Bleckmann, too, emphasized the good relations between Rhodes and Pergamon in this period.<sup>19</sup>

While this chronological range for the Pergamon Deposit was generally accepted, an early challenge went largely unnoticed. Gelder, in an article published in 1915, proposed a closing date of ca. 165 B.C. based primarily on epigraphic evidence.<sup>20</sup> He began by noting that Damokles, an eponym from the deposit, is named as priest of Helios on an inscription from the reign of either Antiochus III (223–187) or Antiochus IV (175–163). As Antiochus III was a constant enemy of Rhodes, Gelder preferred the latter's reign, thus giving Damokles the priesthood before 163 B.C.<sup>21</sup> Gelder also pointed out that another Rhodian magistrate (head of the prytany) mentioned in the same inscription, Astymedes, is attested as active in relations with Rome in 171, 167, 164, and 153; Gelder argued that Astymedes held the priesthood of Helios "in 153 or thereabout" during the Cretan War (154–151 B.C.). The stamp name Astymedes does not appear in the Pergamon Deposit.<sup>22</sup> A third epigraphically attested eponym, Pratophanes, appears on an inscription concerning Rhodian arbitration of the conflict between Samos and Priene. Gelder believed that the inscription (and also the priesthood of Pratophanes) should date to ca. 165 since the other Rhodians named are attested as naval commanders in events of 190 and 170. Presumably Gelder assumed that their naval service was a necessary precursor to their service as arbitrators. In any event, Pratophanes appears three times in the deposit at Pergamon and more commonly at Carthage, so Gelder saw him as a very late eponym for the Pergamon Deposit.<sup>23</sup> On the basis of these and similar, though less directly relevant, arguments,<sup>24</sup> Gelder proposed a date of ca. 165 for the closing of the deposit.

As noted above, however, Bleckmann's suggested range, 220–180 B.C., came to be most widely accepted. In 1922, for example, A. Maiuri published another major Rhodian stamp assemblage, the Villanova deposit from Rhodes itself; he followed Bleckmann's dating and did not refer

19. Bleckmann 1907, pp. 24–25. Nilsson's study of Rhodian amphora handles (1909) took notice of both Bleckmann and Schuchhardt's work but did not discuss the dates of the handles or other ramifications of the Pergamon Deposit. In a later article, Bleckmann (1912, *passim*) continued to use a range of 220–180 for the deposit.

20. Gelder 1915. This article was published in Dutch in a journal that did not commonly publish archaeological topics (Marianne Stern, pers. comm., 24 May 2001). Virginia Grace received an offprint of the article from Peter Fraser in 1950 and commissioned

a translation from an unnamed native speaker. The original offprint, now in poor condition, and the typescript of the translation are currently stored in Grace's files in the Stoa of Attalos. For Grace's discussion of this work, see *Délös* XXVII, p. 290, n. 5; Grace 1985, pp. 12, 44.

21. Gelder 1915, p. 199. Dittenberger (as published in 1917, *Syll.*<sup>3</sup> 644) also prefers Antiochus IV, noting that he was a known benefactor to Rhodes. Dittenberger does not refer to Gelder and seems to prefer a date of ca. 172 for this inscription.

22. Gelder 1915, pp. 200–202.

23. Finkielsztejn (2001, pp. 120–

121, and table 19, p. 192) notes the association between Pratophanes and fabricants of the Villanova deposit (see below). As a result, he dates Pratophanes much earlier than Gelder argued. Finkielsztejn does not refer to Gelder's argument concerning Pratophanes.

24. The other epigraphically attested eponyms (Eukles, pp. 203–204; Sosikles, p. 206) fall more clearly, according to Gelder (1915), outside the span of the Pergamon Deposit. While interesting in themselves, they do not particularly strengthen Gelder's case.

to Gelder.<sup>25</sup> F. Hiller von Gaertringen (1931) also adopted Bleckmann's dates.<sup>26</sup>

In 1934, Virginia Grace brought together Schuchhardt's and Bleckmann's arguments as follows:

[The Rhodian chronology] is based primarily on the large closed deposit in Pergamon published by Schuchhardt, which according to the agreement of archaeological with traditional probability is to be dated at the end of the 3rd and the beginning of the 2nd century B.C. The forty-odd eponyms . . . indicate about four decades of almost continuous trade. This period may be placed ca. 220–180 B.C., immediately before and closely after which Rhodes and Pergamon were not in friendly relations with one another.<sup>27</sup>

Grace's publications of the 1950s and 1960s continued to employ this chronology.<sup>28</sup> E. Levi, publishing stamps from Olbia in 1964, follows the same chronology.<sup>29</sup> A later closing date, "before 167 B.C.," is suggested in Fraser and Bean's *Rhodian Peraea*, but their reference is to Grace's earlier publications, in which she never suggested such a date.<sup>30</sup>

As early as February 1961, however, it is clear from Grace's notes that, in preparing her contribution to Ziegenaus and de Luca's first volume on the Pergamene Asklepieion,<sup>31</sup> she had begun to reconsider aspects of the deposit. Over February and March 1961, Grace and her colleagues restudied the names appearing in the deposit and came to a figure of "under" or "about" 35 accurately read eponyms. This correction was first published in 1970.<sup>32</sup> Through the 1960s, too, Grace turned her attention to Gelder's challenge to the 220–180 chronology. In a manuscript dated 25 May 1968, entitled "Dating of the Rhodian Eponym Damokles and of the Original Pergamon Deposit," she summarized Gelder's argument and responded that perhaps Antiochus III, late in life, was seeking to win back

25. Maiuri 1924, pp. 264–265.

26. *RE* Suppl. V, 1931, cols. 834–840, s.v. *Rhodos* (F. Hiller von Gaertringen).

27. Grace 1934, p. 215.

28. Grace (1950), publishing material from Tarsus, cites a range of 220–180 B.C. for the deposit; similarly, Grace 1952, p. 525, for Delos; 1953, p. 119, in a new list of Rhodian eponyms; and 1956, p. 176, for the Pnyx. Both editions of the *Agora Picture Book* on amphoras (Grace 1961 and 1979, with figs. 32–33) also cite 220–180, even though Grace no longer favored this chronology after 1970.

29. Levi 1964, p. 227.

30. Fraser and Bean 1954, p. 12; Grace's notes (7 March 1961) on this publication draw attention to the difference between her view of the

deposit's closing date and the opinion attributed to her. Kathleen Slane pointed out to me that Fraser had given the offprint of Gelder 1915 to Grace and so may have been familiar with Gelder's proposed later closing date. Perhaps, Slane suggested, Fraser abbreviated both Virginia Grace and H. van Gelder as V.G. in his notes and made a simple mistake in the text of *Rhodian Peraea*.

31. *AvP* XI.1, pp. 175–178.

32. *Délös* XXVII, p. 291. Andreas Dimoulis assisted Grace in reconsidering the eponyms. The results of their work were recorded in a series of handwritten and annotated lists of eponyms from the Pergamon Deposit (especially notes dated 24 February 1961 and 11 March 1961).

the support of Greek cities, such as Rhodes, whose support he had lost in the preceding hostilities. She went on to suggest that if the inscription dated to the reign of Antiochus IV, then the stamp eponyms might not have been the priests of Helios as had been so long assumed. A revised version of this typescript appeared as an appendix to Grace's 1985 article on the Middle Stoa in the Athenian Agora:

If the date of the inscription cannot be put earlier, we must accept the fact that the eponym *Δαμοκλῆς* 2nd in the stamps is not the same person as the eponym *Δαμοκλῆς* of the inscription, and then apparently that the stamp eponyms (often called priests in the stamps) are not the priests of Helios who date other Rhodian documents.<sup>33</sup>

33. Grace 1985, p. 44.

34. Grace 1985, pp. 5, 7, 9, 13. That the eponyms are priests of Helios is an assumption still found commonly in the literature, e.g., Empereur and Hesnard 1987, p. 15; Lund 1999, p. 188. Finkielsztein (2001, pp. 42, 176, n. 53) also favors this attribution, though he does note that it is uncertain.

35. On secondary stamps, see Badal'yants 1973; Palaczyk 1999; Finkielsztein 2001, pp. 116–120, 177–178.

36. *Délos* XXVII, p. 291.

37. Grace (1974, p. 196) summarizes the connections between Pergamon, Rhodes, and Knidos only very briefly; the argument was expanded upon considerably in 1985.

38. Grace 1974, p. 196.

39. Grace 1985, p. 15, where she notes that the latest Knidian eponyms in the fill for the Stoa of Attalos "are perhaps not later than 157." It should be noted that the construction fills of the Stoa of Attalos have yet to be reconsidered for publication. Townsend (*Agora* XXVII) has amply demonstrated the potential for extremely useful stratigraphy in this region of the Agora. Attalos II's reign was, for the purposes of clarifying the construction date of the Stoa, unfortunately long (159–138).

40. The Rhodian ethnicity of these phrourarchs was never suggested: Grace felt that the names were "no more Rhodian than Knidian" (*Délos* XXVII, p. 318).

41. *Délos* XXVII, pp. 318–319; Grace 1985, p. 14; 1974, p. 196. For the situation at Priene, see *IPriene* 19.6 and 37.66.

Indeed, while Grace does discuss priesthoods of Athena Lindia and Helios in the same article, the eponyms on the stamps are referred to more generically as "dating officials."<sup>34</sup>

Grace's rejection of such a late date for Damokles depended largely on the fact that a small, square, secondary stamp never accompanies an eponym stamp of Damokles.<sup>35</sup> In 1970, Grace was the first to draw attention to the following:

12 or 13 [Rhodian eponyms in the Pergamon Deposit] sometimes occur on handles bearing also secondary stamps . . . a feature which it now seems, may have begun to be used in 188 B.C., at the time of chief Rhodian expansion on the continent. Taking then as our end date 13 years after 188 B.C., and allowing a period of about 35 years, we would come out with approximately 210–175 B.C.<sup>36</sup>

Damokles' term as eponym should fall before 188, and the closing date of the Pergamon Deposit was thus worked out to be 175 B.C.

In 1974 and 1985, Grace elaborated on the connection between Rhodian control of Caria ("the continent," see above) and a closing date of 175 for the deposit.<sup>37</sup> The arguments presented in these two articles make clear for the first time the importance of the Knidian stamp chronology to the date of the deposit and the Rhodian stamps.

One new element to the issue is Grace's interpretation of the Knidian title *φρούραρχος*. She noted that the title appears on Knidian handles at Corinth (sacked 146) and beneath the Stoa of Attalos (built, according to Grace [1974], "somewhere about 150 B.C.,"<sup>38</sup> and later [1985], "right after [Attalos] became king, in 159"<sup>39</sup>), so the title must have been in use before the middle of the 2nd century. Grace proposed that these phrourarchs were mercenary commanders for Rhodian garrisons (or Rhodian-employed garrisons) controlling Knidos while Caria was a Rhodian possession between 188 and 167 B.C.<sup>40</sup> Since more than one phrourarch name can appear with a single eponym, Grace proposed that each phrourarch's term was perhaps four months long (phrourarchs attested epigraphically at Priene held terms of four months).<sup>41</sup> The second element now taking on a greater role in the discussion is the Middle Stoa building fill (hereafter, MSBF),

long under study by Grace, referred to briefly in *Délos XXVII* in reference to the date of the Pergamon Deposit,<sup>42</sup> and published in 1985.<sup>43</sup>

Grace brought the two elements together as follows. The Knidian stamps in the MSBF include nine names that are, elsewhere, labeled as phrourarch; and two full-year eponyms, one of whom served alongside two phrourarchs included on stamps in the fill. Thus, subtracting two full years plus two and one-third years (the terms of the remaining seven phrourarchs) from 188 results in a closing date for the MSBF roughly five years later, i.e., ca. 183 B.C.<sup>44</sup> The MSBF and the associated Knidian amphoras are linked to the Pergamon Deposit by the fact that seven Rhodian eponyms at Pergamon are not found under the Middle Stoa. If the final date of the Pergamon Deposit is ca. 175, then counting back seven years results in the Middle Stoa dating to 183 or 182 B.C.<sup>45</sup> Grace's earlier argument (in *Délos XXVII*) concerning the first appearance of secondary stamps around 188 B.C. adds further support to this sequence of points. Six MSBF Rhodian eponyms are also attested with secondary stamps; counting six years from 188 (and including that year) also yields a date of 183 B.C. for the Stoa.

Subsequent surveys of the Rhodian (and Knidian) chronologies have tended to follow Grace's 1974 article and the conclusions put forward in the publication of the MSBF. Roland Étienne, publishing finds from Tenos in 1986, adopted Grace's dates of 210–175 for the Pergamon Deposit.<sup>46</sup> J.-Y. Empereur, summarizing the Rhodian chronology in 1987 and 1990, gave the same range.<sup>47</sup> Börker, too, suggested "around 3 decades"<sup>48</sup> as an appropriate length for Rhodian period III (= the Pergamon Deposit), querying whether the least commonly represented names in the deposit might be better considered late period II (i.e., preceding the apparently continuous series of eponyms within the deposit). While Börker suggested that the core of the deposit comprises only 26 names, he retained the essential closing date of ca. 175 B.C.<sup>49</sup>

The only significant change in the dates of the Pergamon Deposit has appeared as part of Finkielsztein's proposal that the Rhodian chronology for periods I–III be lowered roughly 11 years and that Grace's period IVA be shortened from ca. 174–156 to ca. 163/1–156.<sup>50</sup> This lower chronology was reached from a number of different directions: 1) counting eponyms backward from destructions of Samaria (108 B.C.) and Marisa (110 B.C.); 2) reconsidering the assignation of names within periods IV and V; and, most importantly, 3) not allowing for any missing eponyms in the period from 174 to 146. Grace had been working forward from a terminus of 175 for the Pergamon Deposit, and Finkielsztein noted that at least 11 eponyms were missing between that time and the destruction of Corinth in 146. He recognized, however, that "l'incompatibilité entre la chronologie basse et l'interprétation historique du dépôt de Pergame demeure problématique,"<sup>51</sup> referring to the much earlier argument that the date of the deposit was tied to good relations between Rhodes and Pergamon. He suggests, by way of resolving the problem, that relations between the cities seem best between 201 and 180 B.C., so his dates of 199–164 fit just as well. The terminus date, for Finkielsztein, can then be tied to Rhodian difficulties after the creation of the free port at Delos instead of particular conflicts between Rhodes and Pergamon.

42. *Délos XXVII*, p. 291.

43. The earliest notes on the MSBF in Grace's files are dated 22 August 1949 and consist of a typed list of the stamps present. Further details and corrections were made between 1953 and 1955. Although the contents of the MSBF do not play a significant role in Grace's publications until 1970 and 1974, her detailed study of the fill preceded, and clearly influenced, her studies of the Pergamon Deposit in the 1960s. A list from 11 March 1961, for example, lists those eponyms present in the Pergamon Deposit, but not in the MSBF.

44. Grace 1985, p. 15.

45. *Délos XXVII*, p. 291; Grace 1985, pp. 7–8.

46. Étienne 1986, p. 235. Badal'yants (1983, p. 93; Badal'janc 1999, p. 249) uses the earlier dates of 220–180 for the deposit.

47. Empereur and Hesnard 1987, p. 19; Empereur 1990.

48. Börker 1998, p. 6.

49. Börker 1998, pp. 9, 14.

50. This revised chronology was developed by Finkielsztein over several years and presented in his dissertation (1993, esp. pp. 230–269) and subsequent publications (1995, pp. 280–281; 2000, pp. 215–218; 2001).

51. Finkielsztein 1995, p. 280.

In one sense then, Finkielsztein has replaced one “historical” argument for another by suggesting a later period for good relations sufficient for intensive trade between Pergamon and Rhodes. Yet this is essentially a minor element of his revisions. Finkielsztein makes a sharp break with past practices by starting with later contexts and working backward toward the Pergamon group. Grace explicitly used Pergamon as the starting point and so required the various historical arguments in order to have some absolute launching point for the chronology.<sup>52</sup> Nevertheless, Grace’s suggestion that there might be some eponyms missing (despite the fact that no new eponyms have appeared for some time) or unrecognized homonyms between 175 and 146 B.C. opens a loophole that Finkielsztein’s argument alone cannot close.<sup>53</sup> Regardless of the number of extant stamps between the close of the Pergamon Deposit and the sack of Corinth, Carthage, Samaria, and other major centers, the stamps themselves cannot necessarily define the period of time in question—missing names or misinterpreted homonyms remain possibilities. If Grace’s historical pins hold up to scrutiny, then Finkielsztein’s case is weakened. If, however, the historical evidence is found to be lacking and a lower date can be substantiated for the deposit’s closure on the basis of other external evidence, Finkielsztein’s revised chronology would be strengthened. Such external evidence would also remove the need for Finkielsztein to find an alternate historical circumstance for good relations between the two cities. Gelder, in that case, would have been essentially correct (albeit for different reasons).

## RHODES, PERGAMON, KNIDOS

Grace and others based their absolute dates for the Pergamon Deposit on two historical points: first, that the years 220–180 (or 210–175) marked a period of good relations between Rhodes and Pergamon, and second, that Rhodes occupied Knidos with a garrison between 188 and 167. A detailed review of the literary and epigraphic evidence highlights problems with both conclusions.

Erich Gruen sums up Rhodian relations with Pergamon as follows: “Cooperation between Rhodes and Pergamon . . . derived from expediency, aims that temporarily converged while enduring interests diverged.”<sup>54</sup> A review of events of the late 3rd and early 2nd centuries calls into question the idea of any extended period of close relations between Rhodes and Pergamon. At the same time, it becomes difficult to determine which political events should be connected with good commercial relations and which would have had no effect on trade. The period of ca. 220–150 B.C. included occasional times of close cooperation between Rhodes and Pergamon, and other moments of outright hostility. Other events and actions lend themselves to varying interpretations of underlying motivation.

Within this span, the last years of the 3rd century include the only noteworthy period of cooperation; the earlier years produce little evidence for particular friendship between the two cities. In 220 B.C., for example, Byzantium began to charge a toll on access to the Black Sea; Pergamon supported Byzantium; Rhodes joined with Bithynia against Byzantium.<sup>55</sup>

52. See especially Grace 1974, p. 196, where she notes the fundamental importance of the deposit as the starting point for her chronological studies.

53. For the possibility of missing eponyms or missed homonyms, see Grace 1974, pp. 197–198.

54. Gruen 1984, p. 545, and likewise pp. 536 and 538; other recent studies of Rhodian history, especially with discussion of relations with Pergamon, include Berthold 1984; Gabrielsen 1997; and Reger 1999.

55. Polyb. 4.47–52; Gabrielsen 1997, pp. 44–46.

Early on in Philip V's aggressions in the Aegean, Rhodians were more active in diplomacy to end the hostilities than they were in siding with any particular major power.<sup>56</sup> In 202, however, Rhodes joined Chios, Cos, Byzantium, Pergamon, and others against Philip. This alliance may have been related to demonstrable Rhodian interest in free access to the Black Sea.<sup>57</sup> The Rhodians, by entering this alliance, may have also hoped indirectly to check Attalos I's interests in the Aegean.<sup>58</sup> Cooperation between Rhodes and Pergamon is clear in three events that took place in 202 and 201: their joint effort against Philip near Chios; the subsequent meeting at Athens involving the Romans, Pergamenes, and Rhodians, all agreeing on a position against Philip; and the presence of both Rhodian and Pergamene troops at the defense of Abydos.<sup>59</sup>

After 201, cooperation between Rhodes and Pergamon seems more the exception than the rule. In 200, when Rhodes and Pergamon gained help from Rome against Philip, Rhodes hesitated to help in united efforts against Philip.<sup>60</sup> In 199, Pergamene and Roman interests diverged from those of Rhodes when Rome assisted Pergamon in exerting control over Andros, an island that had been the object of Rhodian interest.<sup>61</sup> Rhodes and Pergamon cooperated again, however, in the capture of Eretria in 198,<sup>62</sup> and in the same year both Rhodian and Pergamene ambassadors issued peace-settlement demands at the conference with Philip near Nicaea overseen by Flaminius.<sup>63</sup> While Pergamon requested restitution for specific damage inflicted on Pergamene territory, Rhodes asked not only for the return of Rhodian territory but also for the freedom of "all emporia and harbors of Asia."<sup>64</sup> There is scant evidence for or against friendship between Rhodes and Pergamon between 197 and 190 B.C. (i.e., eight of the years postulated as being a period of good relations).<sup>65</sup>

In the two years immediately preceding the Peace of Apamea, however, relations between Rhodes and Pergamon were clearly poor. In 190, when Antiochus III explored possibilities of peace, Eumenes II spoke against Rhodes in rejecting the possibility.<sup>66</sup> At Rome in 189, during discussions leading up to the Peace of Apamea, Eumenes claimed that the Rhodian envoys were bound to speak against Pergamon's interests.<sup>67</sup> The

56. Livy 27.30.4–10; Polyb. 11.4.1–6.10 (207 B.C.; hostility against Philip is considered "the nominal pretext [πρόσχημα] of the war," W. R. Paton, trans., New York 1927) and 15.22.4–23.6 (203 B.C.; the Rhodians were active in diplomacy with Philip but were so offended by his treatment of Cius that they swore enmity against Philip). See also Walbank 1967, pp. 274–275, 476; Ager 1991.

57. Polyb. 4.47; Livy 27.30.4–10; Gruen 1984, p. 533.

58. Gruen 1984, pp. 535–537; Berthold 1984, p. 115. The existence of an ad hoc alliance of the sort attested between Rhodes and Pergamon need not imply that the "allies" were in full

agreement on all matters, and an alliance might be hoped to result in the eventual weakening of one of the allies.

59. See Polyb. 16.2–9 (battle near Chios); 16.26 (meeting at Athens in 201); 16.30.7 (siege of Abydos). Livy (31.2.1) also attests to a joint meeting in Rome in 201; see Gruen 1984, p. 534.

60. Polyb. 16.35. An Achaean delegation offered to arbitrate a separate peace between Rhodes and Philip; the Romans successfully requested that the Rhodians not do so. Gruen (1984, p. 536) emphasizes the possibility that Rhodes might have agreed with the Achaeans.

61. For the capture of Andros, see

Livy 31.45.1–8; for Andros as a target of Rhodian interest, see Gruen 1984, p. 536, with reference to Livy 31.15.8.

62. Livy 32.16.6–7.

63. Polyb. 18.1.4–18.2.5.

64. Polyb. 18.2.4: καὶ τῶν ἐμπορίων καὶ λιμένων τῶν κατὰ τὴν Ἀσίαν ὁπάντων.

65. Gruen (1984, pp. 544–545) notes that both Rhodes and Pergamon worked against the Spartan Nabis in 195, but Gruen emphasizes the differing aims of Rhodes and Pergamon at this point.

66. Polyb. 21.10; Livy 37.19.1–6. See Walbank 1979, p. 101.

67. Livy 37.53.2–3; Polyb. 21.19.3–12.

Rhodians noted their friendly relations with Pergamon, but proceeded to argue against Eumenes' territorial requests.<sup>68</sup> During Pergamon's war with Pharnakes of Pontus between 183 and 179, Rhodes prevented Eumenes from blockading the Hellespont.<sup>69</sup> Rhodian support for Sinope against Pergamon's enemy, Pharnakes, may be seen as Rhodes helping an old friend rather than as an attestation of Rhodian friendship with Pergamon.<sup>70</sup> In 178, Pergamon encouraged and assisted a Lycian revolt against Rhodes with attacks against Rhodian border positions.<sup>71</sup> Late in the 170s, Rhodian judges voted along with others to strip Eumenes of honors granted to him by the Achaean League.<sup>72</sup>

In subsequent crises involving Perseus of Macedon between 171 and 167, Rhodes and Pergamon operated from quite different perspectives; although they did not cooperate closely, they were not antagonistic toward one another.<sup>73</sup> In 168–167 B.C., when Rome began to settle its conflict with Perseus, the Pergamene and Rhodian deputations made none of the hostile claims against one another that marked the settlement leading up to Apamea.<sup>74</sup>

In short, Rhodes and Pergamon were never consistent allies, and there is certainly no period during which the two powers were so friendly that intensive trade can be assumed to have been the result. Indeed, an important element in the idea that intensive trade was facilitated by political friendship remains unaddressed: What sorts of political relations in antiquity would or could have encouraged trade?<sup>75</sup> If Rhodian troops assisted Pergamenes at Abydos, would Rhodian merchants or other merchants carrying Rhodian products be any more inclined to stop at Pergamon? Would a Rhodian judge's vote against Eumenes II influence such merchants? These questions cannot be answered as long as the only diachronic evidence for Rhodian-Pergamene trade—Rhodian amphoras found at Pergamon—is structured by the very assumption that good political relations created good commercial relations. In order to begin to address such questions, the archaeological evidence for trade must be datable independently of such assumptions. This need is even clearer in the particular case of the Pergamon Deposit, for which the assumption of good political relations at the time of the deposit is so poorly supported by the textual sources.

If, however, the phrourarchs in Knidos can be placed with certainty between 188 and 167, it is no longer necessary to depend on the assump-

68. Polyb. 21.22.6–12.

69. Polyb. 27.7.5.

70. Polyb. 23.9.2; Walbank 1957, pp. 511–513; 1979, p. 227. Berthold (1984, pp. 172–173) notes that Rhodian favor toward Sinope did not translate into substantive action by Rhodes in aiding either Sinope or Pergamon.

71. Polyb. 27.7.5–6; cf. 24.15.13 for Eumenes assisting Rhodes in Lycia; Livy 42.14.8.

72. Polyb. 28.7.9–10; for discussion and references for the date of and

participants in this event, see Berthold 1984, p. 180, n. 2.

73. For events and motivations during this period, see Berthold 1984, pp. 181–194; Gruen 1984, pp. 556–568.

74. Polyb. 29.29; 30.1–5; Livy 45.19.

75. Gabrielsen (1997, p. 67) might overstate the assumption that lay, in part, behind the dating of the Pergamon deposit when he writes that “no Rhodian amphoras . . . were allowed into a city that currently did not stand

in a good political relationship with Rhodes.” Instead, I imagine that Schuchhardt, Bleckmann, Grace, and others assumed far fewer goods would be imported in periods of hostility. The core of Gabrielsen's objection to the dating being tied to assumptions about how politics affected trade seems, however, eminently sensible. In general, on difficulties reconciling the archaeological record with changes in political climate, see MacDonald 1982; Kracht 1990; Adams 1979.

tion that good political relations create intense trade relations. The argument that Grace put forth linking the MSBF, Knidian eponyms and phrourarchs, and Rhodian eponyms in the Pergamon Deposit would still yield a time span of ca. 210–175 B.C. for the deposit.

The status of Knidos after the treaty was signed at Apamea in 188 is unclear. The status of specific cities has become a central point of debate concerning Apamea. On the one hand, the settlement of Apamea gave Rhodes control of Caria and Lycia south of the Maeander River, and this territorial settlement did translate into some real territorial gains.<sup>76</sup> Nevertheless, Lycian complaints to Rome against Rhodes as early as 188 B.C. show the ambiguity of the terms of the settlement even in an area where the Rhodians had established the office of hagemon.<sup>77</sup> Knidos's assistance to Rome against Antiochus may have guaranteed its freedom after 188,<sup>78</sup> but any degree of certainty as to the city's status seems nearly impossible to achieve. The most direct evidence for control—the very amphora stamps in question—cannot outweigh the uncertainties raised by other sorts of evidence relating to Knidian autonomy.<sup>79</sup>

Indeed, the likelihood that Knidos was placed under Rhodian control and that Rhodes would have felt the need for establishing a garrison there is lessened in view of the close, uncoerced connections between Rhodes and Knidos both before 188 and after 167.<sup>80</sup> Obverses of earlier Knidian coins show Helios, a potential reference to Rhodes;<sup>81</sup> Knidians cooperated with Rhodes in diplomatic efforts in 196;<sup>82</sup> and in 164, Knidos collaborated with Rhodes in the Calyndian revolt against Caunos that resulted in a resurrection of Rhodian control of part of the mainland.<sup>83</sup> This last act hardly seems the action of a newly independent city that had just ejected a Rhodian garrison. Finally, as Gary Reger points out, the appearance of an autonomous mint at Knidos in precisely the years following the Apamea settlement is further evidence arguing against Rhodian control.<sup>84</sup>

Nikolai Jefremow has recently argued that a phrourarch need not have led a foreign, occupying force.<sup>85</sup> Local or friendly garrison commanders had the same title. Phrourarchs at Syracuse, Alexandria Troas, Miletos, and Priene all commanded friendly garrisons.<sup>86</sup> Furthermore, phrourarchs,

76. For the settlement of Apamea, see Polyb. 21.17, 24.7–8, 43, 46; Livy 37.45.12–16, 38.38, 39.7–17, 55.4–7, 56.

77. Most recently, see Bresson 1999, pp. 106–118.

78. Livy 37.16.2.

79. Those favoring Knidian autonomy point to the city's role in mediating disputes, minting coins, and engaging in military activity; see Magie 1950, pp. 108–109, 952, n. 61, 958, n. 75; Reger 1999, pp. 89–90; Walbank 1967, p. 615; cf. Walbank 1979, p. 171, highlighting the uncertainty of the case of Knidos. Mediation is rejected as an indication of autonomy by Gruen (1984,

p. 540, n. 49). Fraser and Bean (1954, pp. 93–94) also favor Rhodian control of Knidos (but their argument depends heavily on Grace's interpretation of the amphora stamps). They also cite Rhodian roses on the reverses of Knidian coins of this period as suggestive of Rhodian control. Rhodian iconography need not imply Rhodian control: Knidos included Helios on their coins before 188 (Head 1967, p. 616).

80. Cf. Fraser and Bean 1954, p. 93: "Rhodes may have garrisoned her newly acquired cities more rigorously than the old cities, since the highly civilised πόλεις were more likely to give trouble."

81. Head 1967, p. 616.

82. *Syll.*<sup>3</sup> 588.

83. Polyb. 31.4.1; Berthold 1984, pp. 219–220.

84. Reger 1999, p. 89, n. 47, with further references.

85. Efremov 1992, pp. 256–257; Jefremow 1995, pp. 50–58.

86. For examples of "friendly" phrourarchs, see, for Syracuse, Plut. *Dion* 11 (368/7 B.C.); Alexandria Troas, *SEG* IV 671 5; Miletos, *Milet* I.3, nos. 22.17–33, 37d.65; and Priene, *IPriene* 4.50. In general on phrourarchs, see *RE* XX, 1921, cols. 773–781, s.v. *Phrurarchos* (H. Kortenbeutel).

in rare cases, played nonmilitary roles in their cities.<sup>87</sup> The rarity of such cases means that it is safe to associate the Knidian phrourarchs with garrisons. Whether the phrourarchs at Knidos were Rhodian, employed by Rhodes, or even part of an occupying force is entirely unclear from the evidence. Therefore, any further conclusions about these phrourarchs are interesting possibilities, but they do not bear the weight of an entire amphora chronology.

Both the proposed period of close relations between Pergamon and Rhodes and the existence of Rhodian garrisons at Knidos are thus called into question for the late 3rd and early 2nd centuries B.C. As noted earlier, the use of the Pergamon Deposit as a linchpin for the Rhodian amphora chronology has long depended heavily on precisely these two points. If these points are now set aside as insufficiently supported, there is still one aspect of the deposit that can assist in determining its date of deposition and, hence, the date of its contents: the archaeological and topographic context of the deposit itself.

## ARCHAEOLOGICAL CONTEXT

Only Schuchhardt's 1895 comments on the findspot of the deposit have been cited in subsequent amphora research, and even these have been subject to gradually changing interpretation. Schuchhardt described the deposit as fill within the foundations of a building. A reasonable interpretation of his description is that the fill belonged to the construction phase of the building, the scenario favored by Gelder (1915) when he described the deposit as containing "882 stamps, all found together as rubbish to support a house on sloping ground, and apparently all deposited at the same time."<sup>88</sup> Grace (1970) described the deposit as having been "dumped in ancient times between the foundations of a room set between the earlier and later city walls, the filling no doubt put in to support a raised floor level."<sup>89</sup> She seems to have envisioned either a renovation with the fill lifting the level of a new floor or a "raised floor level" being part of the original construction.<sup>90</sup> For the most part, the above descriptions place the deposit earlier than the two-room building in which Schuchhardt places the deposit itself. Only Grace's description admits the possibility of the deposit having been added during a later phase of renovation.

Other descriptions of excavations in this area of the Pergamene acropolis suggest that these reconstructions of the relative sequence of events are entirely incorrect. Only new excavation might resolve the uncertainties surrounding the relative sequence of the deposit building and the deposit itself.<sup>91</sup> Published descriptions and a consideration of the surrounding topography, however, indicate that the deposit accumulated nearby, perhaps during the period of use of the building, and that the latest material was dumped in after the building itself was abandoned.

In 1930, Georg Kawerau and Theodore Wiegand published the palaces and other buildings of the Pergamene acropolis, including the building where the deposit was found. Of primary importance for the present discussion are three areas (Fig. 2): 1) Palace V, a large, elaborately

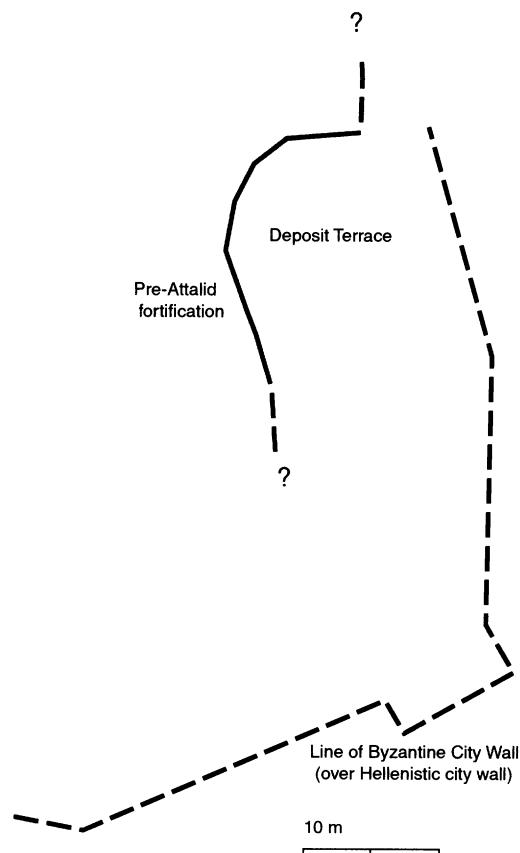
87. For duties of phrourarchs beyond military activity, see *Syll.*<sup>3</sup> 41.12 (phrourarchs at Erythrai serving to administer the city council). In *RE* XX, 1921, cols. 777–778, s.v. *Phrourarchos*, H. Kortenbeutel notes that nonmilitary roles are especially seen in Ptolemaic Egypt in the 2nd century B.C.

88. Gelder 1915, p. 198.

89. *Délos* XXVII, p. 290; also Grace 1985, p. 3.

90. For layers of amphora debris raising the floor level of a building after its initial construction, see Williams 1978, pp. 17, 20; 1979, p. 112, on the Punic Amphora Building.

91. A note in Grace's files dated 6 July 1958 records a conversation with J. Schäfer indicating that Schäfer was planning to excavate near the Pergamon Deposit building. Grace expressed the hope that new study of the relevant walls might result in evidence for dating the deposit. There is, however, no follow-up to this exchange and I find no published reference to such excavations.



**Figure 4. Phase 1: Pre-Hellenistic construction in the area of the deposit.** After *AvP* V.1, pl. 6

decorated building focused on a peristyle court, perched on a terrace above the area of the deposit;<sup>92</sup> 2) the deposit terrace and the deposit building;<sup>93</sup> and 3) building group VI, a series of storage buildings whose preserved contents and plan suggest that they were used for military storage and barracks.<sup>94</sup> Kawerau's description, Carl Humann and Richard Bohn's earlier preliminary report on the excavations of 1886, and more recent research by Wolfgang Radt and others allow the following revised reconstruction of phases of activity on and around the terrace.

The earliest constructions near the terrace appear as scant masonry facing of the bedrock bluff (Figs. 3–4). Kawerau describes this facing as the “old wall,” and this is generally associated with the pre-Hellenistic city fortifications.<sup>95</sup> Regardless of its date or even precise function, this masonry's relative chronological position is clear from the fact that the south wall of the deposit building covers this pre-Hellenistic masonry (see Fig. 3). The construction of the building required as a prerequisite that its terrace be incorporated into the fortified circuit of the acropolis (Figs. 3, 5). A short

92. *AvP* V.1, pp. 30–39; Radt 1998, pp. 8–10; 1999, pp. 68–74.

93. *AvP* V.1, p. 40. Kawerau and others have treated both the terrace and building as part of building group VI. For the present study it is necessary to distinguish these two areas. When I refer to building group VI below, I am referring to the structures forming the

southern border of the deposit terrace and the complex of buildings further south.

94. *AvP* V.1, pp. 41–46; for arsenal buildings at the north end of the acropolis, see *AvP* X.

95. *AvP* V.1, p. 40. Radt (1999, fig. 8, and pp. 55–56) illustrates this stretch of pre-Attalid fortification

in his plan of the phases of the fortification before Eumenes II, but does not discuss it further. Conze (*AvP* I.2, pp. 164–165) describes the remains of pre-Attalid fortifications north of the deposit area, but does not discuss the traces of walls nearer the deposit.

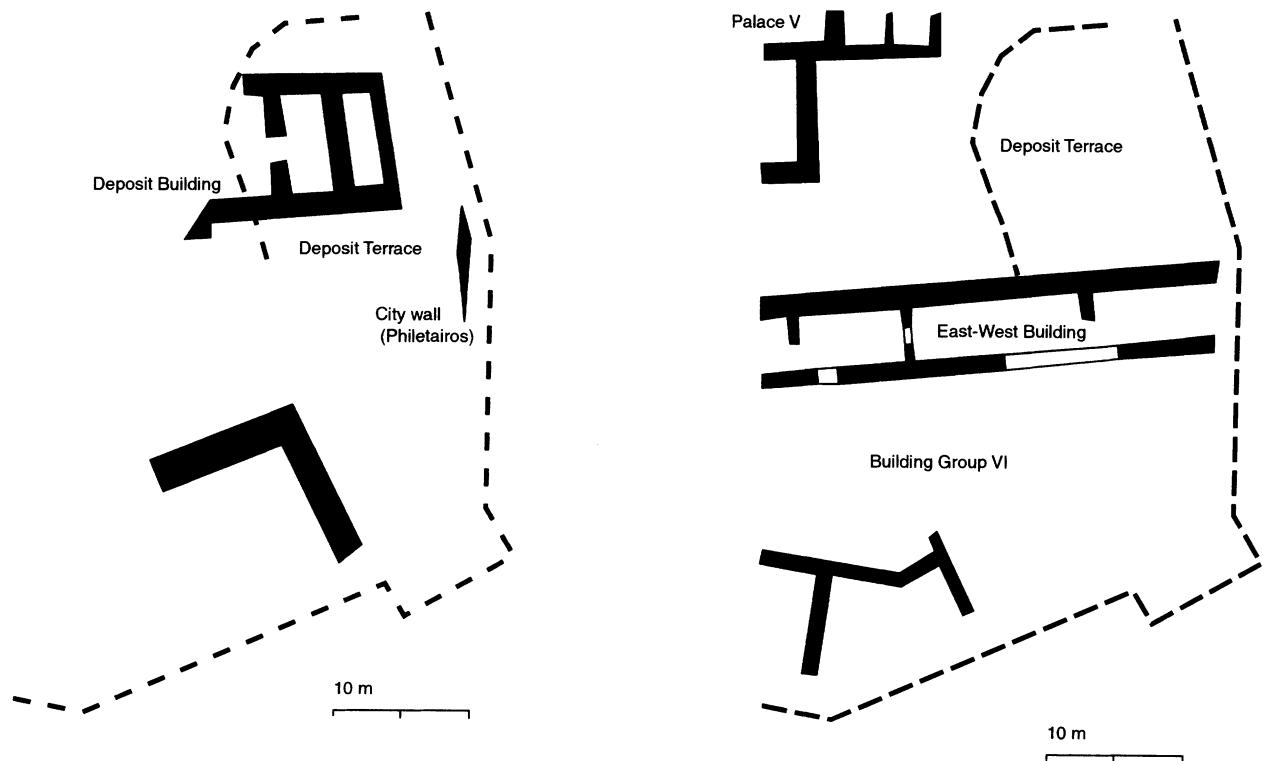


Figure 5 (*above, left*). Phase 2: Construction in the area of the deposit, Philetairos through Attalos I.  
After *AvP* V.1, pl. 6

Figure 6 (*above, right*). Phase 3: Construction in the area of the deposit, Eumenes II and Attalos II.  
After *AvP* V.1, pl. 6

stretch of polygonal-masonry wall core under the current Byzantine city wall is the only evidence for this event, and this wall is currently associated with the reign of Philetairos.<sup>96</sup> Once this outer wall appeared, the building itself could be constructed.

Kawerau described the deposit building in considerable detail, noting its position on what must have been an extension of the acropolis area created by the outer (Philetairan) wall.<sup>97</sup> He describes the fill against this outer, later wall as being rich in pottery, including “more than a thousand handles,” and he points out connections between the stamps on these handles and many workshops.<sup>98</sup> That Kawerau is describing the Pergamon Deposit or something very closely related is indicated both by his reference to Schuchhardt’s publication and by his illustration of the area with a Turkish workman holding an amphora handle while standing inside the deposit building (Fig. 1).

Bohn, in 1888, used precisely the same description for fill against the Philetairan wall.<sup>99</sup> In Bohn’s case, however, the description comes within a description of the (later) long, east–west building, which divides the main part of building group VI from the terrace (Figs. 3, 6). The back wall of

96. Conze (*AvP* I.2, pp. 177, 183) and Radt (1999, pp. 56–57) describe fortifications attributed to Philetairos.

97. *AvP* V.1, p. 40. Kawerau also notes here that the westernmost cross-wall is comprised of two drastically different masonry styles, irregular polygonal masonry at the north and large squared blocks to the south. This

difference in masonry may raise the possibility of a phase of renovation for the deposit building.

98. *AvP* V.1, p. 40: “In dem als Hinterfüllung der vorgeschobenen Mauer [the ‘later city wall’] benutzen Schutt fand sich eine auffallend große Menge von Scherben einfacher Tongefäße, darunter namentlich mehr als

tausend Henkel, welche die Stempel sehr verschiedener Werkstätten tragen. (Bohn, vgl. *A.v.P.* VIII 2, Inschriften, S. 423ff., nr. 766–1322).”

99. The lines cited in the previous note from Kawerau’s description are a direct quotation of Bohn’s preliminary report (Humann, Bohn, and Fränkel 1888, p. 67).

this set of rooms abuts the acropolis wall. Bohn does not discuss the deposit terrace or building, nor does he specify the extent of the pottery-rich fill. The only other published reference to this fill appears earlier in the same preliminary report, where Humann notes the discovery of the many stamped handles that were then copied carefully by Schuchhardt.<sup>100</sup> Despite Schuchhardt's testimony that the published stamps filled rooms of the deposit building, Bohn's and Kawerau's descriptions of the fill lying against the acropolis wall indicate that the fill extended over much of the terrace. Why Schuchhardt's description of the context of the deposit is more restricted than Bohn's (or Kawerau's, which was clearly taken from Bohn) remains unclear, but the extension of the deposit beyond the confines of the building itself seems very likely, given these published reports. The spatial and chronological relationship between the building and this amphora-rich fill thus becomes more complicated. Before addressing this problem, I continue with the relative sequence of buildings.

At roughly the same time as the deposit building's construction, other storage or perhaps barracks buildings appeared both north and south of the terrace (Figs. 3, 5). To the north are scanty remains of these buildings beneath Palace V; their masonry technique is generally described as similar to that of the deposit building.<sup>101</sup> To the south, similar masonry is poorly preserved in the area of later arsenal and barracks buildings just within the circuit of the city wall and near a major gateway to the acropolis.<sup>102</sup> These walls, too, are considered roughly contemporary with those of the deposit building. All of these structures, including the deposit building, have been interpreted as a series of storage buildings spread over the south end of the acropolis.

The construction of Palace V over the storage buildings north of the terrace and of new arsenals and barracks of building group VI together mark the final phase of Hellenistic building activity in this area (Figs. 3, 6).<sup>103</sup> Once these buildings were in place, the terrace became strikingly isolated. Construction of the palace removed the storage buildings that had overlooked the terrace. The south and west walls of the new palace are perched on the same rocky escarpment that had supported the pre-Hellenistic city wall, and these new walls would have backed against and towered over the deposit terrace. Likewise, the back wall of the east-west building of building group VI effectively blocks access to the terrace from

100. Humann, Bohn, and Fränkel 1888, p. 57.

101. Radt 1999, p. 74; *AvP V.1*, pp. 30, 34, 40; *AvP X*, p. 56.

102. *AvP V.1*, pp. 42–44; Radt 1999, p. 74.

103. For the approximate contemporaneity of these new buildings with the construction of Palace V, see Radt 1999, p. 74, where the author also

notes that the construction of Palace V would have reduced the number of military buildings on the citadel, and p. 76, where he suggests that, as a result, the arsenal buildings at the north end of the citadel were expanded. The masonry style of the walls of the long east-west building resembles the masonry of the latest Hellenistic acropolis wall, which has been attrib-

uted to Eumenes II; see Radt 1999, figs. 10 (at right) and 26; the southern part of building group VI appears to date to the same phase as the Great Altar (p. 91, fig. 39d). Kawerau (*AvP V.1*, pp. 41–45) considers the many phases of construction in this area, but does not suggest specific dates.

the south. The heavy, long south wall of the deposit building would have further discouraged communication with building group VI; any door from the north side of building group VI (and none is preserved) would have opened only onto a narrow space, 2.5–4 m wide, if the deposit building was still standing and in use.<sup>104</sup>

As for the west side of the terrace, Radt's recent reconstruction places an entrance to Palace V along its southern facade approached by stairs from the southwest.<sup>105</sup> Near this entry route it might seem as though there is continuing access to the terrace between the palace's southernmost wall and the north side of building group VI. Here too, however, access would have been made difficult by the bedrock escarpment. The precise height of this escarpment over the original ground level of the terrace is not certain, but observation of the site today and photographs from the early excavations (e.g., Fig. 1) confirm the difficulty of access to the terrace from the west.<sup>106</sup> It is possible, therefore, that the deposit building, now located behind this heavy wall to the south and down a rocky slope from the buildings to the north, went out of use once these buildings were completed. There is no indication of access between the palace and the lower terrace; instead the palace appears to back up against the rocky drop down to the deposit terrace.<sup>107</sup> Thus, the terrace was clearly isolated by this final phase of construction, and it seems most unlikely that the deposit building remained in use.

Where, then, does the Pergamon Deposit fit into this sequence of buildings? The broader extent of the deposit, now apparent from Bohn's and Kawerau's descriptions, should exclude from consideration any interpretation that is limited to the interior of the deposit building itself. The deposit did not serve simply to raise the floor level of the building itself.<sup>108</sup> Other possibilities include the following: 1) the deposit represents the construction fill for the building and its accompanying terrace; 2) the deposit represents gradual fill that accumulated over the area as a result of the use of the deposit building; or 3) the fill covered the terrace after the building

104. The parallel orientation of the southern wall of the deposit building and the northern wall of the east-west building in building group VI might imply their contemporaneity (I owe this observation to K. Slane). Kawerau thought that the masonry styles of the two walls were too different to be contemporary (see Fig. 3, after *AvP* V.1, pl. 6), and Radt (1999, fig. 15) modified Hans Schlieff's plan of the acropolis (1932) to separate these walls into different building phases (see Radt 1999, fig. 14).

105. Radt 1999, p. 68, fig. 15.

106. Radt (1999, pp. 74–76) notes the separation between the deposit

terrace and the higher area to the north: "Er war an den nach Norden steil anstiegen den Fels gelehnt. Diese natürliche, hohe Felsstufe scheidet das Plateau von Palast V von der niedriger gelegenen Baugruppe VI." Radt is using the standard definition of building group VI as including the terrace. In addition to Fig. 1 here (from *AvP* V.1, text pl. 20), see Radt 1999, p. 75, fig. 26, in the background, where the upper part of this escarpment is visible at roughly the height of the Byzantine tower door; and *AvP* V.1, text pl. 19.1, showing the height of the bedrock over the remains of the deposit building. The drop to

the lower terrace is also described by Kawerau (*AvP* V.1, p. 40).

107. The doorway marked at the back of Palace V (See Radt 1999, fig. 15), opening roughly toward the deposit terrace, opens onto an area between the palace and the fortification wall still far above the deposit terrace.

108. Grace's original intention in her phrasing is hard to ascertain. For the present purposes, the *possibilities* of interpretation—regardless of the risk of misconstruing Grace's intended meaning—are what must be addressed and, in this case, excluded.

went out of use (or as the building was going out of use). One point should be emphasized as a preliminary caution: there is no need to imagine that the deposit comes from a single, stratigraphically uniform fill. During excavation, fill over the ancient activity surface might well have been accidentally mixed with the earliest construction fill in the area; similarly, destruction-phase fill may have been combined with use-period fill. Such mixing occurs in excavation today and there is no reason to exclude the possibility in 1886.

From these three possible circumstances for the accumulation of the deposit come further expectations and implications. If the deposit represents (in large part) construction fill, we might expect to find a concentration of eponyms around the time of the building's construction and then a significant decrease in the appearance of later eponyms. In that case, the date of the construction of the deposit building should establish the latest date for the bulk of the Rhodian eponyms. For the other two scenarios—accumulation during the use of the building and a dumped fill following its abandonment—the significant event for the chronology of the deposit is the abandonment of the building. This event would mark the latest date of the bulk of the deposit. If the debris accumulated through the use-life of the building, then the eponyms should be spread (not necessarily evenly) across the use-period of the building. Even if all or some of the material accumulated in a nearby area while the deposit terrace was in use and was only dumped in after the terrace was abandoned, a broad spread of eponyms would still be expected. We are left with two fundamental points to choose between: either the Pergamon Deposit dates to the construction phase of the deposit building or its terminal date corresponds with the abandonment of the terrace.

Had the debris been terrace fill for the construction of the deposit building, as Kawerau and Gelder envisioned, it is hard to imagine the source of so much pottery, particularly amphoras. The sheer size of the Pergamon Deposit deserves attention. Nearly 900 amphora stamps were published from this area, which covers at most 400 m<sup>2</sup>. A minimum density in terms of surface area (calculated on the basis of the horizontal spread of the deposit and excavations, without taking the depth of the fills into account) would be 2.3 stamped amphora handles (sah) per square meter (sah/m<sup>2</sup>). If the ca. 900 stamps published by Schuchhardt were indeed found only within the building (ca. 10 × 10 m), this density rises to roughly 9 sah/m<sup>2</sup>. Even at 2.3 sah/m<sup>2</sup>, few other accumulations of stamps are as densely packed or as numerous. The construction fill for the Middle Stoa in Athens, for example, far exceeds the Pergamon Deposit in terms of number of stamps, but the density of stamps is significantly lower (0.6 sah/m<sup>2</sup>).<sup>109</sup> Moreover, the MSBF accumulated in an area where commercial activities took place that would have generated much debris.<sup>110</sup>

That some unusually rich source of amphoras is necessary to explain such a high density of amphora stamps in the Pergamon Deposit is demonstrated by further examples. A late-second-century building from Hellenistic Ilion, covering ca. 109 m<sup>2</sup>, included only 11 stamps in its construction fill (0.1 sah/m<sup>2</sup>); the building is clearly separated from the Late Hellenistic agora of Ilion.<sup>111</sup> Fill over the floor of the 1,225-m<sup>2</sup> Square

109. Nearly 1,500 stamps are reported from the MSBF. There are other, uncatalogued, stamps from this fill, most of which are barely legible, stored in the Agora context pottery tins; I have seen no more than 30 of these. The Middle Stoa covers an area of ca. 2,572 m<sup>2</sup>, but the entire area has not been excavated. Thus, the minimum density of stamps in this area is ca. 0.6 stamps per square meter. Even though the fill was most substantial in the western half of the area (S. Rotroff, pers. comm., 4 April 2002; and see Grace 1985, pp. 21–24; Rotroff 1988), the density there does not approach the figure for the Pergamon Deposit.

110. Earlier (5th–4th century B.C.) evidence just east of the Middle Stoa area for commerce involving amphoras is highlighted in Lawall 2000.

111. Panas and Pontes (1998) publish many of these stamps (among many others from excavations at Troy); the building in question is reported as the “North Building” in Rose 1993, pp. 100–104; 1994, pp. 76–80.

Peristyle Building, which lay under the Stoa of Attalos, included 103 stamps (0.08 sah/m<sup>2</sup>). The building fill for the Stoa of Attalos, covering an area of 2,300 m<sup>2</sup>, only contained ca. 135 amphora stamps (ca. 0.06 sah/m<sup>2</sup>).<sup>112</sup> The density of stamps in terms of surface area for the Pergamon Deposit is clearly unusual and indicates a substantial source of amphora storage and use. At this early stage, there is no candidate for a nearby source of the debris (Fig. 4). The poverty of evidence for such a source preceding the construction of the deposit building contrasts sharply with the plentiful evidence for potential sources after the construction of the building.

The construction date of the deposit building is difficult to know with precision or certainty. The terminus post quem should be placed within the reign of Philetairos (283–263 B.C.), after his construction of the wider course of the city wall encompassing the deposit terrace. The terminus ante quem is the construction of Palace V and the roughly contemporary embellishment of building group VI. As noted above, these constructions isolated the terrace, making it unlikely that any subsequent construction took place on the terrace. The sixteen Thasian amphora stamps published as part of the deposit may provide the construction date of the deposit building.<sup>113</sup> These Thasian stamps tend to date near or shortly after the middle of the 3rd century, with a group of four all with the same magistrate and a fifth with a different name necessarily close in date to the group of four.<sup>114</sup> The clustering of Thasian magistrates near the middle of the century might indicate a construction date during the time of Eumenes I (263–241 B.C.) for the deposit building and the other neighboring storage buildings.

While these few Thasian stamps might date near the time of the deposit building's construction, the vast bulk of the deposit, as noted above, requires the presence of large-scale amphora storage and use in the vicinity. For this reason, the period of use of the deposit building and the other storage buildings in the area should provide a chronological context for the accumulation of the Pergamon Deposit. The frequently repeating eponyms (and fabricants) among the Rhodian stamps attest to large-scale accumulation in the vicinity (Table 1). Had this accumulation occurred farther away on the site, the chronological unity of the fill, with so much repetition of names, is less likely to have been maintained. The point at which accumulation stopped should correspond to the destruction of these older storage buildings. These storage buildings overlooking the deposit terrace were destroyed as part of the project to build Palace V. The contents of

112. Grace 1985, p. 24, n. 63; see also *Agora* XXII, p. 106: "more than 100."

113. Börker 1998, nos. 537–552. The Thasian amphora chronology for the 3rd century B.C. has been developed independently of that for the Pergamon Deposit; see Debidour 1979; 1986; 1998a; 1998b; and *Histria* VIII.1.

114. Börker 1998: nos. 539–542 all carry the eponym Aristomedes, while another Thasian stamp (no. 546) carries

the eponym Herakleides. A stamp of this eponym was recut to show the eponym Aristomedes, so presumably these two eponyms are close to one another in date (Debidour 1986, p. 333; 1979, pp. 298–299). Avram (*Histria* VIII.1) only includes a Herakleides stamp that Debidour considers to be an earlier homonym to the example at Pergamon. Avram does not include Aristomedes in his year-by-year lists of Thasian magistrates from

specific complexes. He does propose dates of 256 B.C. (Börker 1998, no. 538, Antianax) and 255 B.C. (Börker 1998, no. 543, Diagoras) for two earlier Thasian stamps in the Pergamon Deposit. The only Thasian stamp from the deposit that has been given a date so far earlier than 263 B.C. (the beginning of the reign of Eumenes I) is Börker 1998, no. 550, Satyros I, which Avram places at 270 B.C.

TABLE 1. RHODIAN EPONYMS ASSIGNED TO PERIOD III FROM THE PERGAMON DEPOSIT

<i>Eponym</i>	<i>Number of Examples</i>	<i>Eponym</i>	<i>Number of Examples</i>
Δορκυλίδας	1	Ἀρχίδαμος	16
Ἀγλούμβροτος	1	Αἰνησίδαμος II	19
Θαρσίπολις	—	Αἰνήτωρ	16
Σώδαμος	—	Καλλικράτης II	8
Σώστρατος	—	Δαμοκλῆς II	21
Κλειτόμαχος	1	Καλλικρατίδας II	26
Θέστωρ	5	Κλευκράτης I	13
Δαμόθεμις	2	Σύμμαχος	18
Ἰασικράτης	1	Νικασαγόρας I	10
Ξενοφάνης	8	Θεαίδητος	12
Πρατοφάνης	3	Ἀθανόδοτος	14
Κρατίδας	8	Ἀρατοφάνης I	8
Ἰέρων I	13	Ἀριστείδας II	10
Ἀρχοκράτης II	17	Ἀρίστων II	20
Τιμασαγόρας	9	Ἀριστόδαμος II	23
Φιλόδαμος II	11	Ἀρχιλαΐδας	6
Κλεώνυμος	14	Ξενοφῶν	5
Ἀγέμαχος	30	Ἀγέστρατος II	3

Eponyms are listed in chronological order, following Finkielsztein 2001, p. 192. Frequencies are taken from Börker 1998, pp. 6–7.

these buildings could have been easily tipped downhill onto the now-abandoned terrace and surely could have been mixed with debris from the deposit building itself.<sup>115</sup> This proposal for an initial accumulation of the deposit material both under Palace V and on the terrace, followed by its incomplete redeposition on the terrace, is supported by Börker's observation of the rarity of matching pairs of handles in the deposit.<sup>116</sup> The bulk of the fills described by Bohn, Schuchhardt, and Kawerau thus must have overlain the construction fills for the deposit building. The construction date of Palace V marks the closing date for the Pergamon Deposit.

The best, and most often cited, evidence for the construction date of Palace V comes from the fact that a coffering block intended for the Great Altar was built into the palace wall;<sup>117</sup> construction thus must have occurred sometime after the beginning of work on the altar. Fragments of relief decoration from the palace show scenes from a gigantomachy and from the life of Telephos, directly echoing the iconography on the Great Altar and further implying the chronological proximity of the palace and the altar.<sup>118</sup> Study of the mosaic decoration of Palace V and the pottery beneath the floor has led to a suggestion of a mid-2nd century date.<sup>119</sup> The pottery in question, however, has not been published (or even described in general terms),<sup>120</sup> so it is necessary to consider what indications the Great Altar itself might provide for the date of Palace V.

The date of the construction of the Great Altar is debated, but various arguments point to the late 170s or the 160s B.C. A series of articles by

115. It is difficult to imagine the debris coming from earlier buildings within the southern part of building group VI. Such debris would have had to be moved upslope and may have been useful as leveling fill in the immediate area.

116. Börker 1998, p. 8. Some portion of the debris from the storage buildings below Palace V would have been used in the construction fill for the palace.

117. Radt 1999, pp. 72–74, figs. 24–25; *AvP* V.1, pp. 32–33.

118. Hoepfner 1997, p. 39, fig. 14.

119. Salzmann 1995, esp. pp. 109–110.

120. The chronological sequence for Hellenistic pottery at Pergamon until very recently depended in part on a closing date of ca. 180 for the Pergamon Deposit, i.e., the traditional Rhodian stamp chronology, and on a similar date for the construction of the Great Altar (*PF* 2, p. 26; and now see de Luca in *PF* 12, pp. 126–127).

P. J. Callaghan offered an argument for a date in the late 160s. Callaghan proposed that Megarian bowl fragments found within the foundations of the altar carry wreath forms that first appear on Pergamene coins in 172; the use of this motif on pottery thus occurred sometime after 172. Other bowl fragments carry a “long-petal” motif that, according to Callaghan, first appears shortly before 165 B.C.<sup>121</sup> Likewise, from an iconographic and historical perspective, Bernard Andreae has suggested that the construction of the Great Altar fits best with Eumenes II’s successes against the Gauls, culminating in the battle of Mt. Tmolos in 166 B.C.<sup>122</sup>

Callaghan’s argument has been criticized for having been based on too few sherds.<sup>123</sup> More recent excavations and publications have now considerably expanded the available evidence. A series of further trenches investigating the Great Altar’s foundations were excavated in 1994.<sup>124</sup> Gioia de Luca and Radt note that, even on the basis of this wider sample of pottery, a construction date in the 170s cannot be securely distinguished from one in the 160s. While raising the possibility that certain fineware types began to be produced earlier at Pergamon than elsewhere, they reject the earlier date of ca. 180 for the altar’s construction. Using arguments of historical probability and elements of the altar’s iconography (i.e., nothing from the new excavations!), they conclude that construction began ca. 172 B.C.<sup>125</sup> Susan Rotroff, reviewing de Luca and Radt’s publication, notes that, if that date is correct, many associated pottery forms must be given surprisingly earlier dates than at other sites.<sup>126</sup> For the present purposes, ascertaining a construction date late in the 170s or within the 160s is sufficiently precise.

At some point after construction of the Great Altar began, it became apparent that coffering blocks—already fully carved and intended for the altar—were no longer needed.<sup>127</sup> The state of completion of the altar is a matter of debate. For those who consider it to have been completed as planned, the unused coffer blocks (and there are others, in addition to the one built into a wall of Palace V) can only be explained as extras, ordered for the project but never used. In such a scenario, the point at which it was determined that these blocks were no longer needed would seem impossible to reconstruct. If, on the other hand, construction was brought to a close before the altar was completed, then the date of this interruption is likely to provide a terminus post quem for the reuse of the unused coffer blocks in other buildings. Kästner and Radt both argue for this latter

121. See Callaghan 1980 on the invention of certain moldmade bowl types in the area of Pergamon in the second quarter of the 2nd century; also 1981 (wreath forms); 1982 (long-petal bowls); Rotroff 1988.

122. Andreae 1997. Grace, too, seemed to lean toward a date for the Great Altar in the 160s. On 3 March 1960, she wrote (unpublished notes) that the altar was dated “180 or 160 B.C., of which 160 goes

better stylistically.”

123. *PF* 12, p. 123; Radt 1998, p. 20.

124. Radt 1995.

125. *PF* 12; Radt 1999, p. 169; cf. Radt 1988, p. 190 (published before the renewed attention to the altar foundations in 1994).

126. Rotroff 2001.

127. Kawerau (*AvP* V.1, p. 33) notes the uncertainty as to why the coffer blocks were not used on the altar

as intended. Kästner (1997, pp. 72–73) explains the move of blocks from the altar to other buildings on the citadel (including Palace V) by positing an interruption to the construction of the altar; similarly, Radt 1999, p. 178; see also Hoepfner (1997, p. 64), who proposes that the altar was completed without change of plan, but does not offer an explanation for the unused coffer blocks.

scenario, and Radt suggests that work on the altar ceased with Attalos II's ascension to the throne in 159, following the death of his brother Eumenes II. Had the brothers begun work on Palace V during the 160s, which remains possible, that work had not progressed far before the coffer block became available for use just above the foundation level.<sup>128</sup> A date for the construction of the palace must fall very late in the 160s B.C., or even in the early 150s.<sup>129</sup> This project would have required the leveling of buildings on the site of the palace. A reasonable place to have dumped the debris from the buildings would have been the small, now-isolated terrace to the south.

In sum, three factors seem to rule out a closing date for the Pergamon Deposit in the 180s or 170s: 1) the date of the Great Altar (no earlier than 172 B.C.); 2) the construction date of Palace V (near or after 159 B.C.); and 3) the topographic situation of the deposit terrace (cut off by the construction of Palace V and the east-west building of building group VI). The construction or early period of use of storage buildings under Palace V or the deposit building itself could have provided the scatter on the terrace of independently datable "early" stamps, mostly Thasian, from the decades around 250 B.C. The concentrated series of Rhodian stamps, with its nearly continuous series of eponyms, would date to the main period of use of the deposit building and other nearby storage buildings. The end of the series should coincide with the clearance of the buildings under Palace V. The most likely closing date, therefore, for the Pergamon Deposit is during the very late 160s or early 150s.<sup>130</sup>

## IMPLICATIONS FOR ARCHAEOLOGY AND ECONOMIC HISTORY

A closing date of the late 160s or early 150s for the Pergamon Deposit fits very well with Finkielsztein's revision of the Rhodian chronology by 11 or more years. He has placed the latest Rhodian eponym in the deposit as late as ca. 161, instead of 175 B.C. Since Finkielsztein worked backward from the known dates of the destructions of Carthage, Marisa, and Samaria, his revision provides independent support of the later date proposed here for the Pergamon Deposit.<sup>131</sup>

This lower date for the close of the deposit has ramifications for other amphora stamp chronologies, as well as for determining the construction dates for major Hellenistic buildings outside Pergamon. The two latest Knidian amphora stamps in the Pergamon Deposit, Börker no. 559 with the eponym Κληνόπολις and Börker no. 554 with the eponym Δαμ(Θε), both fall within the period of the phrourarchs, and neither is present in the MSBF. For these reasons, Grace placed them after 183 B.C. but, since they appear at Pergamon, before 175 B.C.<sup>132</sup> Lowering the closing date at Pergamon to the late 160s makes it possible that these two Knidians, and indeed the other eponyms with phrourarchs, might also date later than had been proposed by Grace.

The earlier dates for Knidian eponyms associated with terms of phrourarchs depended very heavily on an interpretation of the historical record that now appears far from certain. Lowering these Knidian dates

128. See *AvP* V.1, pp. 32–33.

129. Radt (1999, p. 178) places the construction of Palace V ca. 159 or shortly thereafter; on p. 74 he suggests that construction of the palace could have begun in the 160s or 150s.

130. I thank Susan Rotroff for drawing my attention to Strabo's unfortunately brief summary of the construction activities of Eumenes II and his brother Attalos (13.4.2). Although the text is debated (see H. L. Jones, trans., London 1970, p. 167, n. 2), it would seem that Attalos was far better known for his actual construction projects, while Eumenes was more involved in landscaping projects. Whether Attalos's projects were carried out in his brother's reign or in his own reign is not clarified in the text.

131. Finkielsztein (2001, *passim*) cites the manuscript of my review of *PF* 11 (Lawall 2002), but his revised chronology was developed well before I wrote that review and is based on a sequence of arguments that stand independently of the Pergamon Deposit dating.

132. Grace 1985, p. 15, n. 32.

leads in a very similar direction as Finkielsztein's Rhodian revision. Grace's Knidian eponym list published in 1985 did not account for at least 12 years between 146 and 108 (period V).<sup>133</sup> Lowering the 146 boundary on the basis of a lower date for the Pergamon Deposit could fill this gap. A point of difficulty in doing so, it might be argued, is the need to place any Knidian eponyms at Corinth before the city's destruction in 146 B.C. While there is as yet no publication of Knidian (or other non-Corinthian) amphora stamps from Corinth with information about their findspots, 42 Knidian stamps, assigned by Grace to the period after 146 down to 80 B.C. (i.e., securely before the resettlement of the city by Julius Caesar in 44 B.C.), do appear at Corinth. This figure represents 24% of the Knidian stamps found at Corinth as of 1990.<sup>134</sup> If nearly a quarter of that city's corpus of Knidian stamps is to be dated after its destruction, then the security of 146 B.C. as a terminus ante quem needs careful evaluation, context by context.<sup>135</sup>

Returning briefly to the MSBF, the lower date proposed for the Pergamon Deposit necessitates assigning a later date for the construction of both the Middle Stoa and the Stoa of Attalos. Such a shift is not as problematic as it might seem. A closing date near 161 B.C. for the deposit brings the MSBF to 169 or later. According to the list of Knidian eponyms published by Grace in 1985, there are 25 or 26 period IV eponyms found in the Stoa of Attalos building fill that are not found in the MSBF. This difference might imply a ca. 25-year gap between the two periods of construction (probably fewer years if some of the period IVA Knidian eponyms under the Stoa of Attalos are earlier than the latest in the MSBF but simply not represented there). A date near 144 B.C. for the construction of the Stoa of Attalos is certainly possible in terms of the long reign of the donor.<sup>136</sup>

133. Grace 1985, pp. 32–35, provides the most up-to-date published list of Knidian eponyms with her assignments of periods. In this list, 22 names are presented as certain members of period V, while another four are listed as possibilities. Grace never mentions the discrepancy between these numbers of eponyms and the ca. 38 years covered by period N. Efremov (1992, pp. 257–258, 264) proposes that the period before the start of the *duoviri* on the Knidian stamps should end ca. 114 B.C. (his period VI = Grace's period V). He takes this date from the fact that no *duovir* stamps have been found in the region of Chersonessos and that region was attacked in 114 B.C., thereby providing a possible cause for the interruption of trade with Knidos. Even so, Efremov allots 32 years to his period VI—still not short enough to be filled with Grace's period V eponyms.

134. As of 1990, a total of 176 Knidian stamps had been found at Corinth; see C. G. Koehler and P. M. W. Matheson, "Imports of Knidian Wine at Athens and Corinth," <http://www.chass.utoronto.ca/amphoras/aia90.htm#imp-kor>, for a slightly modified version of a paper delivered at the 92nd Annual Meeting of the Archaeological Institute of America (Koehler and Matheson 1991).

135. On the problematic "interim" phase at Corinth, between 146 and 44 B.C., see Romano 1994; Williams 1978, esp. pp. 21–22; *Corinth* VII.3, p. 90.

136. K. Slane (pers. comm.) comments that there should be 16 years, as accounted for by Knidian phourarchs and eponyms, between the final date of the Pergamon Deposit and that of the Stoa of Attalos building fill. Using Finkielsztein's date of

161 B.C., we come to ca. 145 for the Stoa of Attalos. Rotroff tentatively suggested a date in the 140s B.C. for the Stoa of Attalos on the basis of the similarity of the stamped amphora handles there to examples found at Corinth (*Agora* XXII, p. 106). More recently, that date was changed to ca. 157 on the basis of Grace's publication of the MSBF in 1985 (Grace 1985, pp. 14–15; followed, for example, by Finkielsztein 2001, p. 41; cf. *Agora* XXIX, p. 468, "to ca. 150"). Neither the coins nor the moldmade bowls in the construction fill of the Stoa of Attalos prove a date of 157 as opposed to a date in the 140s. The date of 157 B.C. rests solely on Grace's interpretation of the Rhodian and Knidian stamp chronologies; this date is not a historically "fixed point" (see, too, *Agora* XXVII, pp. 104, 111).

Several implications thus follow from a revision of the closing date of the Pergamon Deposit. An accurate accounting of the relationship between the Pergamon Deposit and other contexts, however, and full understanding of the effects of the proposed lower date on other chronologies, will depend on the completion of certain monumental tasks. Assembling correct lists of stamps from the Stoa of Attalos and South Square (South Stoa II, East Building, and Middle Stoa) in Athens will require a thorough reexamination of the stratigraphy of those building fills and the findspots of the stamps.<sup>137</sup> The frequent references made above to the Knidian chronology highlight the need for a publication of that class of amphora stamp with particular attention to which eponyms are present in the various major building fills and other useful contexts.<sup>138</sup> Publication of the Knidian and Rhodian stamps from Corinth, with particular attention to distinguishing finds assignable to before and after 146, would provide a useful test of the implications described above for the Knidian chronology.

Finally, this separation of the dates of Rhodian stamps at Pergamon from assumptions about the relationship between trade and politics frees us to explore more fully the nature of such a relationship. The early connection drawn between the Pergamon amphora stamps and political relations has long colored historians' consideration of Rhodian trade with Pergamon,<sup>139</sup> though recently scholars have been more skeptical.<sup>140</sup> As noted above, it is difficult to imagine the point at which decaying political relations would stop or slow Rhodian-Pergamene trade, especially when only a part of that trade might have involved Rhodian merchants themselves as opposed to merchants of other states.

Even so, our ability to separate Rhodian chronology from assumptions connecting trade and politics, a possibility first introduced by Finkielsztein's revisions to the Rhodian chronology and strengthened by the present study, allows us to consider the decline or expansion of Rhodian (and other cities') trade with Pergamon in light of historical events. Finkielsztein has taken this process quite far already by noting the potential impact of the creation of the "free port" at Delos on Rhodian trade with Pergamon.<sup>141</sup> Yet other questions remain. Do other amphora imports decline at Pergamon after the 160s? The events of 166 B.C. certainly changed the commercial topography of the Aegean, but the impact of these events on Rhodes and other commercial centers is still much debated.<sup>142</sup>

A more thorough study of import patterns before and after 166 B.C. at Pergamon and elsewhere would begin to clarify who benefited from the new status of Delos (or if that had any impact at all). Is there any indication that local events nearer Pergamon had a greater impact on what was imported to that city? What was the economic impact of Pergamon's conflict with Gallic mercenaries in 168–166 B.C., or with Prusias II of Bithynia in the 150s B.C.?<sup>143</sup> If some portion of Pergamon's imported amphoras arrived indirectly through a series of overlapping regional spheres of trade, rather than coming directly from Rhodes, then the local environment of Pergamon should have had a significant impact on the attractiveness of the city to merchants. In that case, too, as with the question of Delos's

137. See, e.g., Rotroff 1988 and Townsend's work in *Agora XXVII*.

138. Cf. Jefremow's proposed Knidian chronology (1995), which does not, unfortunately, take sufficient account of Aegean contexts.

139. See above, p. 296.

140. E.g., Gabrielsen 1997, p. 67.

141. Finkielsztein 1995, p. 280.

142. See, e.g., Gabrielsen 1997; Berthold 1984. Reger (1994, p. 270) places greater emphasis on the destruction of Corinth as the turning point in the Delian and Cycladic economies.

143. For the events of 168–166, see Polyb. 29.22, 30.1–3; Livy 20.1, 34.10–14, 44.21, 45.19.3, 12; for Pergamon's conflict with Bithynia, see Polyb. 32.15.1–14; App. 12.1.3–7; Strab. 13.4.2.

impact, study is needed not only of the Rhodian finds at Pergamon, and not only of the stamped handles, but of all diagnostic amphora fragments from carefully selected datable contexts.

No doubt other historical events around the Aegean (e.g., the destruction of Corinth in 146 B.C. and the bequest of Pergamon to Rome in 133 B.C.) could also be considered against the amphora record at Pergamon. Now that the Rhodian and Knidian chronologies, and any further ceramic chronologies built with reference to these two stamp classes, have been separated from an assumed connection between politics and trade, we can begin to explore that problematic connection with less danger of circular reasoning.

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