



---

TOWERS AND FORTIFICATIONS AT VAYIA IN THE SOUTHEAST CORINTHIA

Author(s): William R. Caraher, David K. Pettegrew and Sarah James

Source: *Hesperia: The Journal of the American School of Classical Studies at Athens*, Vol. 79, No. 3 (July–September 2010), pp. 385–415

Published by: [The American School of Classical Studies at Athens](http://www.jstor.org/stable/40981055)

Stable URL: <http://www.jstor.org/stable/40981055>

Accessed: 18/03/2014 10:15

---

Your use of the JSTOR archive indicates your acceptance of the Terms & Conditions of Use, available at <http://www.jstor.org/page/info/about/policies/terms.jsp>

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact support@jstor.org.



*The American School of Classical Studies at Athens* is collaborating with JSTOR to digitize, preserve and extend access to *Hesperia: The Journal of the American School of Classical Studies at Athens*.

<http://www.jstor.org>

# TOWERS AND FORTIFICATIONS AT VAYIA IN THE SOUTHEAST CORINTHIA

## ABSTRACT

Although rural towers have long been central to the discussion of the fortified landscapes of Classical and Hellenistic Greece, the Corinthia has rarely figured in the conversation, despite the historical significance of exurban fortifications for the territory. The authors of this article report on the recent investigation by the Eastern Corinthia Archaeological Survey of two towers and associated fortifications in the region of Vayia in the southeast Corinthia. By integrating topographic study, intensive survey, and architectural analysis, they suggest that these three sites served to guard an economically productive stretch of the Corinthian countryside and to protect—or block—major maritime and land routes into the region.

Recent work in the eastern Corinthia has expanded our understanding of the easternmost parts of the area under the control of the Greek polis of Corinth.<sup>1</sup> To date, however, much of this research has concentrated on the eastern part of the Corinthian Isthmus and the far southeastern corner

1. An early version of this paper was presented at the 110th Annual Meeting of the Archaeological Institute of America in Philadelphia in 2009. William Caraher and David Pettegrew are responsible for the final text of this article; Sarah James prepared and wrote the catalogue. Timothy Gregory provided a preliminary analysis of the pottery in 2003, and Kate Pettegrew and Susannah Van Horn illustrated the artifacts.

We are grateful to the codirectors of the Eastern Corinthia Archaeological Survey (EKAS), Timothy Gregory and Daniel Pullen, and the field director, Thomas Tartaron, for encouraging us to investigate and publish the site of Ano

Vayia. Gregory facilitated our work at every step of the way and helped us obtain access to the facilities at Isthmia for a final analysis of the finds. EKAS and the Ohio State University Excavations at Isthmia kindly provided material equipment for the investigation, and participants from both projects helped us to discover, record, and draw these sites in 2001, 2003, and 2008. We are especially grateful to Holly Cook, Jon Frey, Dimitri Nakassis, Kate Pettegrew, Lita Tzortzopoulou-Gregory, and Anthoulla Vassiliades for advice and assistance in the field. The 37th Ephoreia of Classical and Prehistoric Antiquities provided cooperation and encouragement.

This paper has benefited from conversations on site with Timothy Gregory and Yannis Lolos, and from comments by Michael Dixon, Daniel Pullen, and Thomas Tartaron. The two anonymous *Hesperia* reviewers provided thoughtful and critical comments on our interpretations that contributed to a more thorough, nuanced, and balanced presentation of the argument.

Finally, we are grateful to Messiah College for supporting Pettegrew's research with a Humanities Enrichment Fund Travel Grant, and the American School of Classical Studies at Athens, where Caraher prepared his contributions while serving as the Rhys Carpenter Fellow.

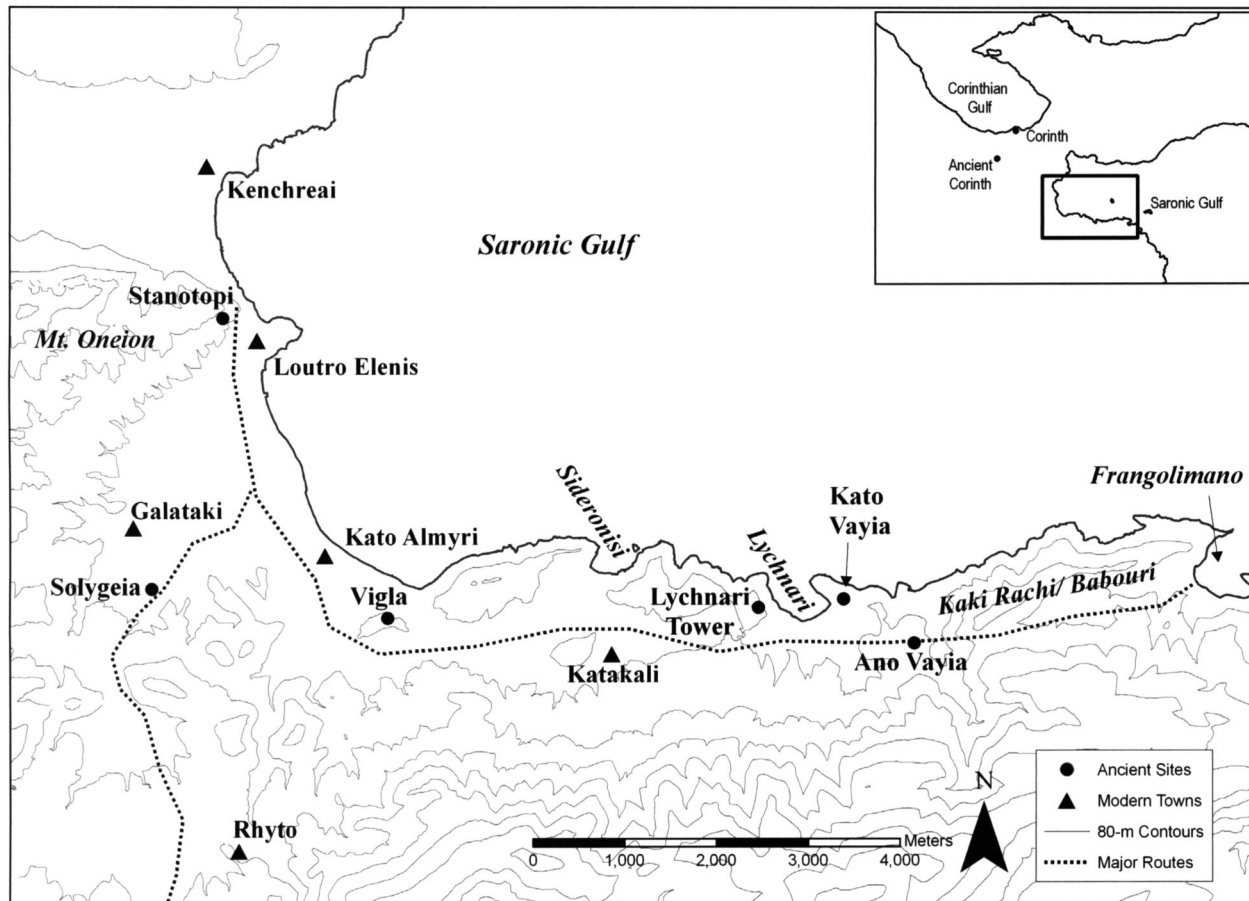


Figure 1. Map of the southeastern Corinthia, showing modern and ancient sites, and major routes.

W. R. Caraher

of the territory near Sophiko and its harbor, Korphos.<sup>2</sup> There has been comparatively less work on the rugged coastline stretching from the Isthmus to the bay of Frangolimano (Fig. 1). The neglect of this area is understandable. Most scholars have argued that the main ancient road through the southeastern Corinthia bypassed this region, proceeding south to the Epidauria and Argolid along the inland route through the modern villages of Galataki and Rhyto before emerging in the fertile plain near Sophiko (Fig. 1).<sup>3</sup> Even today the area near the village of Katakali is rugged country, relatively undeveloped, and lacking in paved roads. The difficulty in accessing this area, compared to the well-trod Isthmus, has contributed to the relative neglect of its topography and antiquities.

In 2001 and 2003, members of the Eastern Korinthia Archaeological Survey (EKAS) conducted fieldwork in this region, concentrating their activities near Lychnari Bay and the peninsula of Vayia (Fig. 2).<sup>4</sup> Although the main goal of this work was to document an Early Bronze Age site on the Vayia peninsula,<sup>5</sup> EKAS also conducted an extensive survey of the surrounding territory. The survey revealed three significant, undocumented sites with preserved architecture of Late Classical to Hellenistic date, which we have called Lychnari Tower, Ano Vayia, and Kato Vayia. With the encouragement of the directors of EKAS, Timothy Gregory and Daniel Pullen, and a study permit provided by the Greek Ministry of Culture, we conducted a short study season in 2008 to complete the documentation of the remains at these sites.

2. For the Isthmus, see Tartaron et al. 2006; Caraher, Nakassis, and Pettegrew 2006. For the area around Korphos and Sophiko, see Dixon 2000; Tartaron et al., forthcoming.

3. Fowler 1932, pp. 99–101; Wiseman 1978, p. 127; Dixon 2000, pp. 61–62.

4. See Tartaron et al. 2006 for an overview of the EKAS aims and methods.

5. Tartaron, Pullen, and Noller 2006.

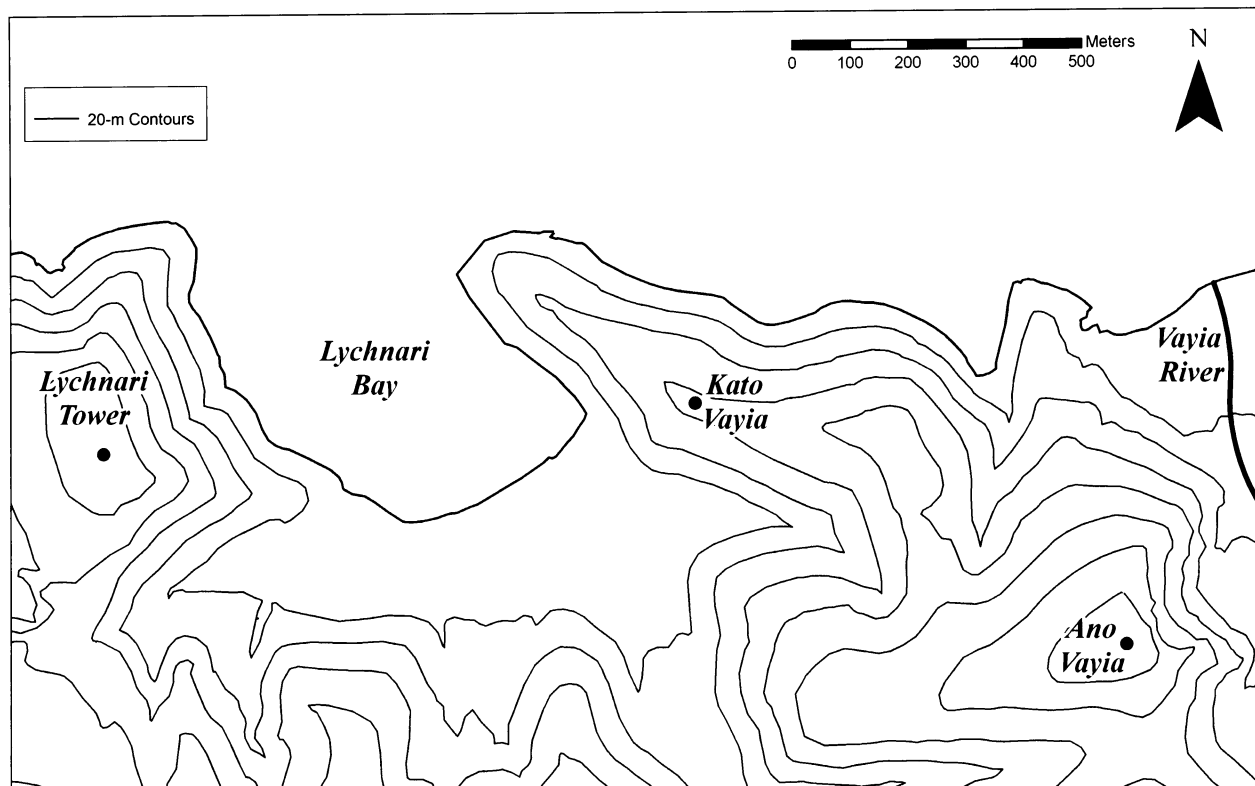


Figure 2. Map of Lychnari Bay and the Vayia peninsula. W. R. Caraher

In this article, we seek to place these three newly discovered rural installations into their local context, with the principal aim of providing specific information on the Classical and Hellenistic landscape of the eastern Corinthia. A careful reading of the local topography, the ceramic artifacts associated with the sites, and other fortified sites in the Corinthia provides evidence for the military function of these buildings. Moreover, the sites near Lychnari Bay reinforce this stretch of the Corinthian countryside as a productive and strategically important coastal environment and a significant corridor for regional communication. In addition to highlighting the significance of this micro-region for the Corinthian polis, we also aim to contribute in a small way to the broader discussion of the function of rural towers and associated installations in antiquity.

### TOPOGRAPHY OF THE VAYIA AREA

The Vayia region occupies a key place within communication and travel networks between Corinth's proximate *chora* on the Isthmus and its more distant southern coastal territory. The rocky spine of Mt. Oneion forms the dramatic southern boundary to the flat plain of the Corinthian Isthmus (Fig. 3), stretching from the imposing rock of Acrocorinth to the harbor town of Kenchreai in the east. To move south by land along the eastern coast of the Corinthia, avoiding both the city of Corinth and the fortifications near Kenchreai, would have required crossing Mt. Oneion through the Maritsa pass, fortified during the Late Classical period.<sup>6</sup> Once south of the mountain ridge, there were several routes through the rugged country

6. Stroud 1971a; Caraher and Gregory 2006.



Figure 3. Mt. Oneion, viewed from the north (the Isthmus), showing the Maritsa pass. Photo D. K. Pettegrew

of the southeastern Corinthia that provided access to cultivable valleys and unfortified settlements, roads west into the Argolid and south into the Epidauria, and several natural embayments.

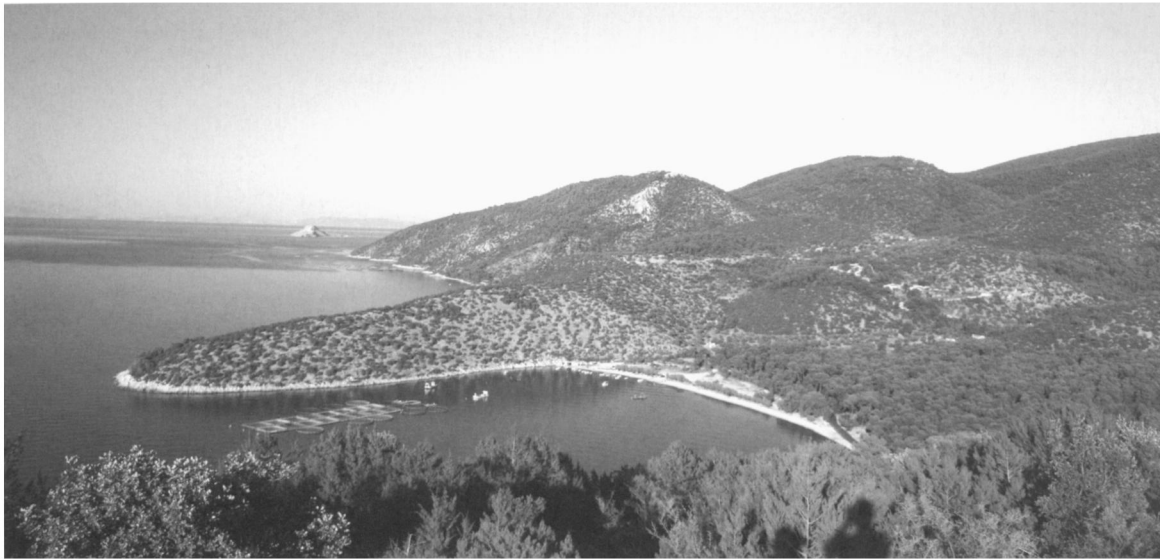
The bay of Lychnari is one of the best natural inlets on the jagged coast of the eastern Corinthia (Fig. 4; cf. Fig. 2). While no evidence for ancient harbor works has been found there, its sheltered aspect and flat beach would have been well suited for ancient ships.<sup>7</sup> The peninsula known as Vayia shields the small bay from the east, and the rocky hilltop of Lychnari protects the bay below from the western wind. Lychnari Bay opens inland onto a broad valley bounded to the north and east by the coastal ridge and to the south by the abrupt mountains of the southeastern Corinthian interior. The valley bottom (Fig. 5) provides relatively easy passage from the vicinity of Lychnari Bay through the nearby village of Katakali northwestward to the low hills south of Oneion, the villages of Kato Almyri, Loutro Elenis, and Galataki, and the ancient settlement of Solygeia (Fig. 1). Continuing north and passing to the east of the low hill of Stanotopi, the countryside opens onto the Isthmus of Corinth and the harbor town of Kenchreai.

Immediately to the east of Lychnari Bay, a small, pebbly beach sits at the mouth of the Vayia River, a seasonal torrent that cuts deeply through the coastal ridge as it descends from the mountains of the central Corinthia (Fig. 6; cf. Fig. 2). Walking inland from this beach, it is easy to reach Lychnari Bay by following a corridor south of Ano Vayia.<sup>8</sup> Turning to the east (Fig. 6), an ascent up the steep but not unmanageable bank of the Vayia River affords access to a high pass (Fig. 7) that runs below and to the south of the coastal height of Kaki Rachi/Babouri. This pass leads eastward to the bay of Frangolimano, from which a traveler can proceed inland, past the fortified Classical site of Ayia Paraskevi and onward toward the valley of Sophiko and the Epidauria beyond.<sup>9</sup>

7. Wiseman 1978, p. 132.

8. This hill, like the coastal peninsula and the small bay, is locally referred to as Vayia.

9. Wiseman 1978, pp. 127–128; Dixon 2000, pp. 68–70.



**Figure 4.** Lychnari Bay and the Vayia peninsula, viewed from the west (Lychnari tower). Photo K. R. Pettegrew



**Figure 5.** Land route to Oneion and the Isthmus, viewed from the east (Ano Vayia). Photo W. R. Caraher

This route to the southeast from Lychnari Bay is suggested by more than the topography alone: there are stretches of a narrow built path ascending the eastern side of the Vayia River valley toward a high valley immediately to the south of the hill of Kaki Rachi (see Fig. 7). Today this high valley is thoroughly terraced, and olive trees continue to be cultivated. A cinderblock field house shares the valley with two abandoned long houses in the advanced stages of collapse. Proceeding east through the pass, the path continues along its northern side where it cuts into the

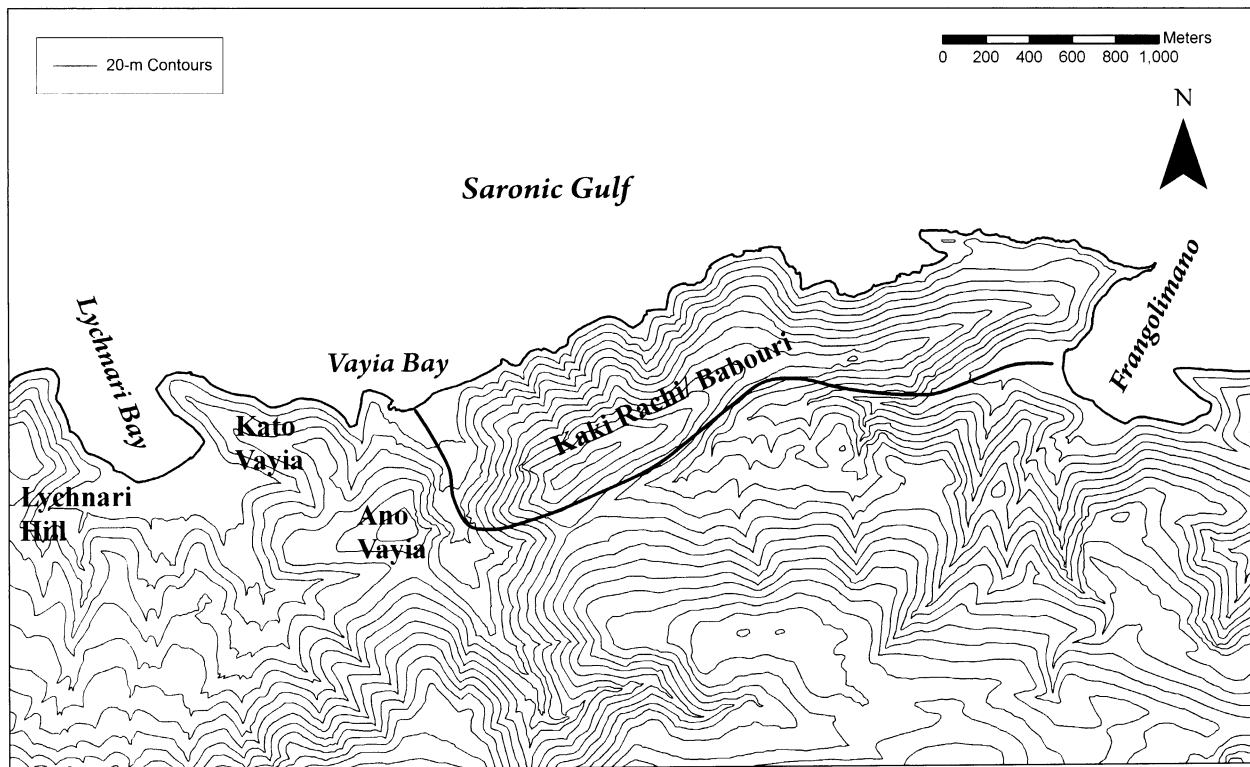


Figure 6. Map showing the pass that runs from Vayia Bay toward Frangolimano Bay. W. R. Caraher



Figure 7. Pass toward Kaki Rachi/Babouri and Frangolimano Bay, viewed from the west. Photo W. R. Caraher

pine-covered, southern/inland slopes of the coastal ridge. The course of the path itself rarely exceeds a gentle slope and gradually descends toward the large bay at Frangolimano, keeping largely to the lower slopes of the coastal ridgeline.<sup>10</sup> Despite the densely wooded and rugged appearance of the countryside, the pass is easy to traverse, and one can walk from Vayia to Frangolimano in a little over an hour. It is worth noting that Peppas has identified a small rubble fortification of medieval date on the southern slope of Kaki Rachi, which would have been well suited to block movement along this route.<sup>11</sup>

## ANO VAYIA

The most extensive remains in the region of Lychnari and Vayia stand atop the hill (156 masl) that we have called Ano Vayia to distinguish it from the site of Kato Vayia below. The site consists of a rectangular complex, which is oriented north–south and constructed of rough polygonal masonry, and a circular tower (Fig. 8). The most imposing feature of the rectangular complex is its western wall (Fig. 9), which is over a meter wide and consists of two faces with a rough cobble core. The wall is preserved in three courses and stands to a height of 1.20 m. The largest stones in this face exceed a meter in length and show signs of having been worked to fit snugly with their neighbors; the inner face of the wall is largely obscured by the tumble of the building, but it was apparently built of smaller stones. In several places along the course of the wall, it is clear that the builders cut back bedrock to form a solid base for the building and, in some cases, even incorporated bedrock outcrops into the lower courses of the walls themselves.

This style of rough polygonal construction is common to rural structures in the Corinthia. We find similar masonry at Kephalaria station, the site of Are Bartze, the towers at the Hill of the Windmills, and in the substantial walls at the site of Ayia Paraskevi.<sup>12</sup> We can contrast this type of wall construction with the technique used at the square Stanotopi tower on the eastern end of the Oneion ridge, where squared blocks are arranged in more or less regular courses.<sup>13</sup> The rough quarry-faced blocks of Stanotopi have more in common with the careful ashlar construction used in towers in Attica, the Megarid, and the Aegean islands, and represent a more refined technique than that seen at Ano Vayia.<sup>14</sup>

At the western wall's midway point, there is a break of slightly over 2.0 m where the bedrock was clearly trimmed back to create an entrance to an east–west corridor between the northern and southern parts of the

10. In recent times, resin collectors used this path, and many of the pine trees show scars from this activity. The remains of a roughly built stone basin for collecting resin indicate that this path was used in the early 20th century, if not before.

11. Peppas 1990, pp. 239–241; 1993, p. 136, plan 2. The modest enceinte consists of drystone walls 1–1.5 m

wide. Peppas's proposal of a medieval date for the walls, however, must be treated with some caution, as it appears to be based almost exclusively on the drystone construction style. Elsewhere in the Corinthia, it is possible to date similar drystone walls to the Classical–Hellenistic period on the basis of associated ceramic evidence; we are not suggesting that the walls documented

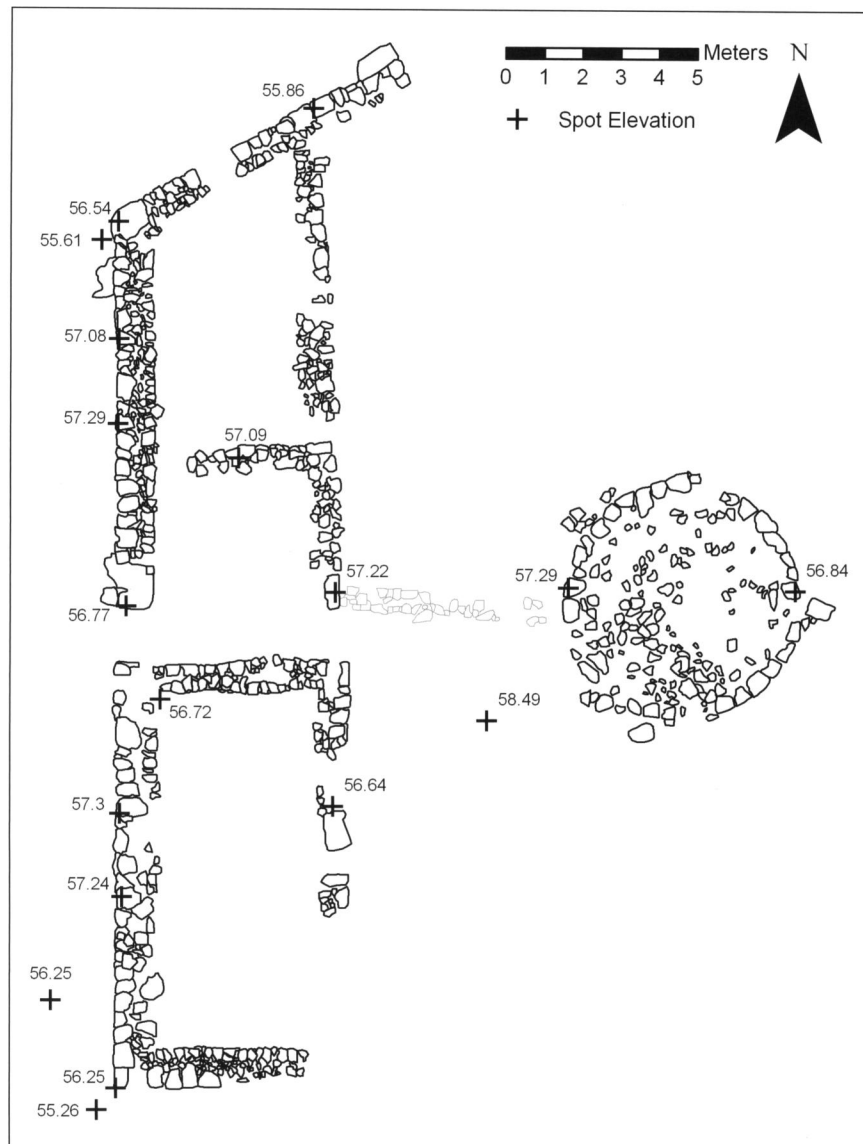
by Peppas are necessarily ancient in date, but merely noting that possibility. We were unable to locate Peppas's fortification in 2008.

12. Wiseman 1978, pp. 128–129; Dixon 2000, pp. 64–65; Dixon 2005.

13. Stroud 1971a, pp. 129–133.

14. See examples in Morris and Papadopoulos 2005, pp. 157–180; Young 1956a.





building (Fig. 8). The structure north of the corridor is in the form of an irregular rectangle with its north wall running 8.0 m northeastward at an obtuse angle from the main western wall to take advantage of a natural bedrock terrace and several substantial bedrock outcrops. The northern wall of the northern structure averages 0.75 m in width and is slightly narrower than the western wall. At a point 4.20 m along its length, the north wall is joined by another north-south wall running roughly parallel to the western wall of the complex, forming the eastern side of the structure. The only clear evidence for a south wall to this structure is a poorly preserved and simple partition wall (7.60 m from the north wall) that could not have borne significant weight. At the southern end of the east wall, a narrower (0.52 m) and rougher wall runs east, toward the tower, for slightly over 5.60 m. Unlike other walls at the site, this wall is constructed of roughly stacked fieldstones. The informal construction style

**Figure 8. Plan of the Classical-Hellenistic fortifications at Ano Vayia.** W. R. Caraher and D. K. Pettegrew



Figure 9. Section of the western wall at Ano Vayia, viewed from the northwest. Photo K. R. Pettegrew

and the absence of larger stones allow the possibility that it represents a later phase in the use of the site.<sup>15</sup>

In contrast to the northern structure, the southern structure appears to be more regular in plan. Its southern wall forms a neat right angle with the main north–south wall of the building. While its eastern wall is obscured in tumble and vegetation, enough of its course is visible to indicate that it was substantial and well defined. Only the northern wall of the southern structure manifests the same shoddy construction technique seen in the partition wall and eastern wall of the northern structure. Its width varies from less than 0.60 m to 1.0 m. The narrower, western parts of the wall do not preserve any rubble core, which could indicate a later phase of rebuilding or modification.

The corridor separating the southern and northern structures runs eastward to the foundation of a round tower with carefully coursed stones preserved with roughly cut, curved profiles on their outer faces (Figs. 8, 10).<sup>16</sup> From the visible remains, it appears that only the lowest and outer course of the tower remains in situ, suggesting a structure with a diameter of 6.20 m. On the tower's western side, a second course of stones may be preserved, but generally the upper courses of the tower have scattered down the steep northern and eastern slopes of the Ano Vayia hill. The round tower is clearly a component of the rest of the compound, but the exact architectural relationship is unclear. The poor quality of the construction of the eastern wall projecting from the north structure makes it difficult to determine whether this should be understood as belonging to the same phase as the tower and north–south compound, or as a later wall that may have served a purpose entirely unrelated to the main phase of construction on the site.

15. Young (1956b, pp. 124–126) describes a similar wall at the Cliff Tower near Sounion.

16. The masonry of the tower's foundation is similar to the rough polygonal style of the building to the west, but it is more carefully coursed.



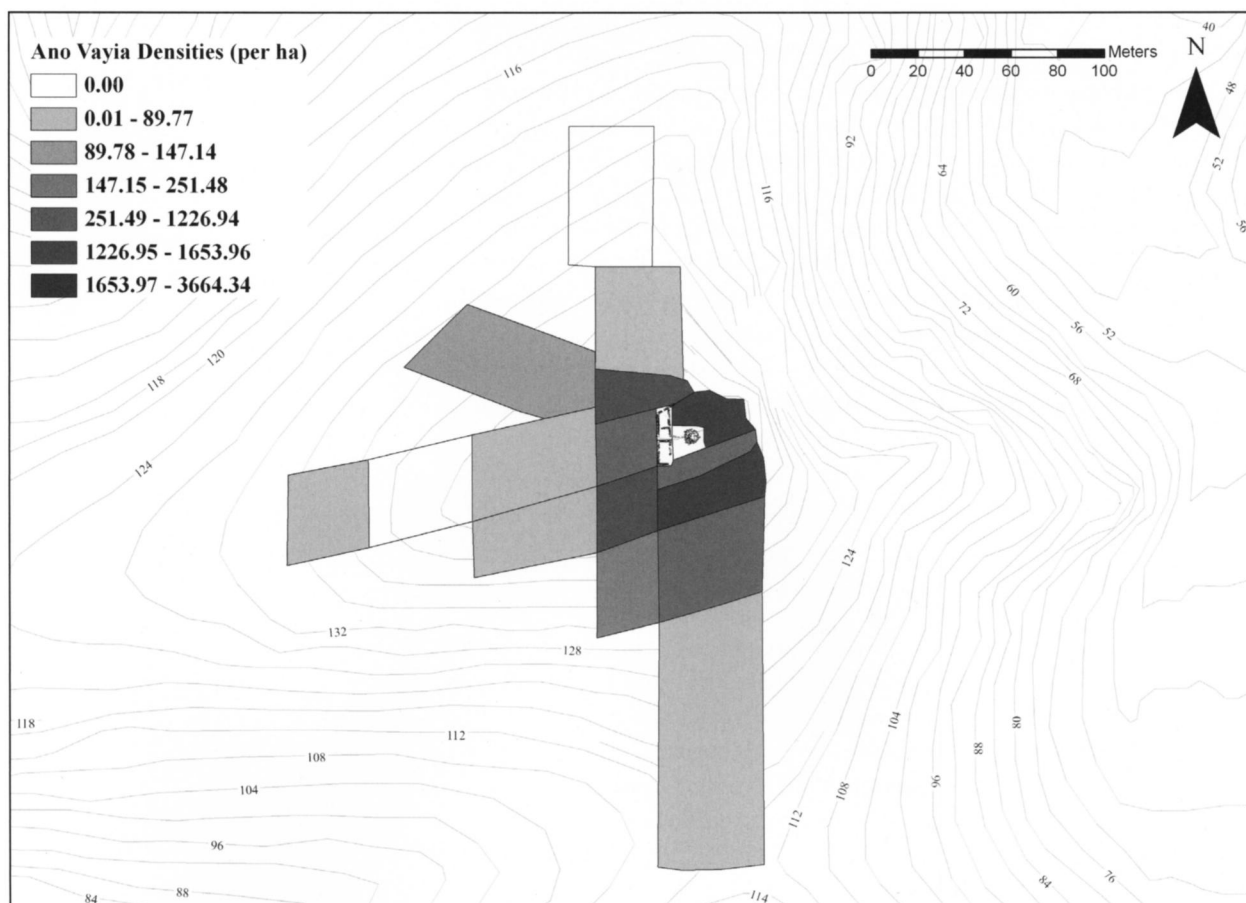
**Figure 10. The tower at Ano Vayia, viewed from the southeast.**  
Photo W. R. Caraher

### INTENSIVE SURVEY

In conjunction with the initial mapping of the architectural remains at the site in 2003, members of the EKAS project conducted a small-scale intensive pedestrian survey of the Ano Vayia hill (Fig. 11). The goal of this survey was to sample material from the hill, to determine the extent of the site, and to produce a data set comparable with that collected from the main EKAS transect on the Isthmus. The last goal required that we conduct our survey of the hill using basically the same technique that EKAS employed elsewhere in the survey area. As we have analyzed many of the advantages and limitations of this method elsewhere,<sup>17</sup> we will include here only a summary of the methods employed and focus instead on the results of this survey.

The most significant obstacle to conducting survey around the site was the dense vegetation covering the entire hill. Pine trees with low branches,

17. Caraher, Nakassis, and Pettegrew 2006; Tartaron et al. 2006.



**Figure 11. Map showing the density of artifacts around Ano Vayia.**

Contour interval 4 m. W. R. Caraher

in particular, made it impractical, if not impossible, to survey the entire hillside, so we decided to focus our efforts on three transects descending the slopes to the north, west, and south sides of the hill; the eastern slope was too steep to survey. Consistent with our procedure elsewhere, the survey on Ano Vayia involved fieldwalkers at 10-m intervals examining the surface 1.0 m to either side of their swath through the unit. The walkers counted every artifact and collected artifacts in accordance with the principles of the chronotype sampling method. This method dictated that the fieldwalker should collect one example of each unique type of artifact. In practice, this means that a walker could collect one example of a rim, handle, base, and body sherd of each fabric or surface treatment present in their 2-m-wide swath through the unit. This method ensured that we would produce at least one example of each type of artifact present in the unit, and it also provided an informal indicator of the frequency or density of particular types of artifacts present in a unit because the walkers could collect as many as five examples of a single vessel type.<sup>18</sup>

18. For discussions of the chronotype system within the context of EKAS, see Tartaron et al. 2006, pp. 457–465; Caraher, Nakassis, and Pettegrew 2006, pp. 11–13; Pettegrew 2007, p. 752.

To make our sample a bit more robust than the typical EKAS survey transect, we surveyed units that were slightly smaller (1,300 m<sup>2</sup>) than the typical EKAS unit (median size: 2,100 m<sup>2</sup>). Smaller units also suited the geological and topographical complexity of the environment. We should note that we did not systematically survey the buildings on the site, but

instead collected grab samples of diagnostic artifacts visible amid the tumble without disturbing the basic arrangement of the fallen stones.

It is perhaps unsurprising that the densest concentration of material occurred around the architecture at the top of the hill and that artifact densities declined dramatically further down the slope. The units immediately adjacent to the collapsed buildings showed artifact densities of nearly 2,000 artifacts per hectare; this number is comparable to the generally high artifact density documented by EKAS across the busy Corinthian Isthmus.<sup>19</sup> Relatively poor surface visibility and hillslope erosion may partly account for the declining artifact densities on the slopes, but there was no evidence for ancient or modern construction on the slopes aside from several modern terraces. Despite the difficulties encountered in this environment and the relatively coarse resolution of our survey, it is clear that the material in the immediate vicinity of the collapsed buildings represents a distinct and localized phenomenon in the landscape.

#### ARTIFACTS AND DISTRIBUTIONAL DATA

Systematic survey of units around Ano Vayia using the chronotype system produced a total assemblage of 90 artifacts, which consisted largely of pottery and tile (96%); three obsidian bladelets and a piece of medieval–modern glass were the only nonceramic artifacts noted in the survey. Approximately 75.6% ( $n=68$ ) of the artifacts date specifically to the Classical–Hellenistic period; these artifacts consist mainly of fragments of coarse utilitarian vessels, storage jars, and pithoi (Fig. 12; see also Figs. 13, 14, below). Classical–Hellenistic coarse and medium-coarse pottery accounts for 31.1% of the total survey assemblage ( $n=28$ : 2 rims, 5 handles, 21 body sherds); some of these sherds belong to amphoras such as Corinthian A and B. Pithos fragments ( $n=26$ ) constitute 28.9% of the total artifact count and 38.2% of Classical–Hellenistic artifacts.

Other ceramic classes of Classical–Hellenistic date are present in small numbers: kitchenware ( $n=6$ ) and roof tiles ( $n=6$ ) each make up 6.7% of the total artifact count and 8.8% of the Classical–Hellenistic material, while two sherds (2.9% of Classical–Hellenistic) were identified as semifine tableware. Overall, the Classical–Hellenistic assemblage is predominantly coarse material that originated from storage vessels and various utilitarian shapes, with small quantities of kitchenware, tiles, and fine ware.

Besides Classical–Hellenistic pottery, the survey also recorded a small percentage (4.4%) of sherds dating to either the Archaic–Classical or the broader Archaic–Hellenistic period,<sup>20</sup> which represent either an earlier phase at the site or, more probably, were left by the same inhabitants who deposited the Classical–Hellenistic sherds discussed above.<sup>21</sup> In addition, although it is impossible to know with certainty, several pieces ( $n=7$ ) of medium-coarse ware may also derive from the same occupational phase; the material is clearly ancient, but otherwise undiagnostic. The survey units also produced a small number ( $n=6$ ) of medieval and modern artifacts that accounted for 6.7% of all artifacts analyzed from the systematic survey.

19. See Caraher, Nakassis, and Pettegrew 2006.

20. From the systematic survey, these include an Archaic–Classical amphora, Corinthian A amphora, pithos fragment, and medium-coarse ware.

21. Since these sherds could date to either the Archaic or Classical period, it is impossible to narrow down the identification one way or another. As discussed in the artifact catalogue below, however, none of the material collected looks specifically Archaic, and since the principal signature at the site is Classical–Hellenistic, it is reasonable to infer that these sherds date to the Classical period.



Figure 12. Typical assemblage of tiles and coarse ware from Ano Vayia.  
Photo K. R. Pettegrew

In order to supplement the systematic collection of artifacts from survey units on the hillside around the structure, we collected grab samples of diagnostic artifacts visible in the architectural collapse itself and in the immediate vicinity of the buildings. This second sample was biased toward feature sherds and diagnostic artifacts, with the aim of gathering as much information as possible about the function and date of the buildings. The assemblage of 61 artifacts collected through grab sampling largely mirrors that collected from the systematic survey units. The majority of material dates to the Classical–Hellenistic span (65.6%,  $n = 40$ ), with meager amounts of Archaic–Classical sherds (14.8%,  $n = 9$ ), a few ancient coarse-ware sherds and tiles (13.1%,  $n = 8$ ), and a single fragment of a hopper mill (probably of Late Classical–Hellenistic date; see below). Unlike substantial rural domestic structures of Classical–Hellenistic date elsewhere, Ano Vayia produced only a small number (4.9%,  $n = 3$ ) of later artifacts in grab samples.<sup>22</sup>

The functional characteristics of the Classical–Hellenistic ceramic artifacts ( $n = 40$ ) generally reflect the Classical–Hellenistic survey assemblage: a large number of pithos sherds (32.5%,  $n = 13$ ) and medium-coarse sherds (22.5%,  $n = 9$ ), and very small amounts of kitchenware (5.0%,  $n = 2$ ); no tablewares in fine or semifine fabrics were collected in the grab sample. The grab samples confirm the picture of an overall assemblage consisting mainly of storage or utility wares such as pithoi and transport amphoras.

The major difference between the Classical–Hellenistic assemblages produced by the systematic chronotype collection and the grab sample collection is that roof tiles constitute the most frequent artifact class (40%,  $n = 16$ ) of the latter but only 8.8% of the former. The relatively larger number of Classical–Hellenistic tiles relates not to sampling method but to the concentration of tiles in and around the collapsed building itself. The tiles collected as grabs (29.5% of total grabs) include 16 plain and painted Laconian tiles of Classical–Hellenistic date and two unslipped Corinthian tiles, datable by fabric to the Archaic–Hellenistic period but clearly associated

22. The Archaic–Classical pottery collected as grab samples includes one Corinthian A amphora handle and eight pithos sherds. Later post-Classical material includes a Roman amphora sherd, a Late Roman stewpot fragment, and a Late Medieval coarse-ware sherd.

with the building. While 18 tile fragments are not very many for a building of this size, their presence at least demonstrates that the structure was roofed. The dearth of roof tiles in and around the structure reflects either the stripping of tiles from the building during or after abandonment,<sup>23</sup> or that they still lie buried beneath the rubble debris. The appearance of Laconian and Corinthian tiles together suggests that there might have been multiple phases of construction or that the building was erected less in accordance with aesthetics and more in line with practical concerns.

### INTERPRETATION OF ARTIFACTS AND ARCHITECTURE

The relatively informal construction style of the structures on Ano Vayia suggests that these buildings represented a less substantial investment in the landscape than one might expect for a place of long-term occupation in use for a generation or more. The assemblage collected from the structure at Ano Vayia, as well as from the surrounding survey units, complements this interpretation in several ways. First, the ceramic material dates primarily to a single period (Classical–Hellenistic), and the relatively few pieces of Archaic–Hellenistic pottery can probably be associated with the same episode of occupation. Evidence for later use of the site in the Late Roman, Early Medieval, Late Medieval, and Early Modern eras is scant and suggests occasional visits to the area, not episodes of refurbishment and reoccupation. In sum, the architecture at Ano Vayia represents a single period of occupation sometime in the Classical–Hellenistic era that left a discrete concentration of material in the coastal landscape.

Second, the artifact assemblage associated with the building is primarily utilitarian in nature. The predominance of fragments of pithoi and amphoras suggests that storage was a priority at the site, perhaps in order to compensate for the apparent lack of cisterns at the top of the hill. The presence of cooking wares and a small hopper mill fragment indicates activities related to food preparation. Fine wares are few, represented only in the survey sample by two body sherds of semifine fabric. The picture we have from ceramic artifacts, then, is one of low-intensity occupation that left comparatively homogeneous debris in the landscape.

The ceramic artifacts suggest that Ano Vayia was a habitation site along the Corinthian coast, but that the occupation was neither intensive nor of long duration. Ano Vayia did not produce the kind of basic ceramic assemblage that has come to be associated with rural farmsteads in the Greek world, with their recognizable quantity and diversity of amphoras, kitchenwares, and fine wares.<sup>24</sup> Nor is the ceramic signature at this site

23. Pettegrew 2001, pp. 196–202.

24. See Pettegrew 2001 for a summary of scholarly discussion about farmsteads, problems of definition, and the typical rural assemblage, and Pettegrew 2002, for the argument that artifact scatters representing “farmsteads” minimally produce a varied “package” of artifact types such as kitchenware,

amphoras, and fine ware. Identifying an ancient rural building as a farmstead will, of course, always be problematic; the character of artifact assemblages says a great deal more about the intensity and investment of land use and occupation over time. For additional discussion of the importance of fine ware and kitchenware in de-

fining rural farmsteads, see White-law 1998, and Bintliff, Howard, and Snodgrass 2007, pp. 39–42, where the authors observe that Archaic–Classical farmsteads in Kea and Boiotia have assemblages with over 50% fine ware, and also high proportions of kitchenwares.

consistent with typical domestic contexts in the Classical period, which show substantial quantities of fine-ware vessels and drinking cups in both urban and rural settings.<sup>25</sup> The paucity of fine ware and kitchenware at Ano Vayia suggests instead limited rates of ceramic discard as well as a meager systemic assemblage of pots and household wares.<sup>26</sup> In short, the ceramic material makes Ano Vayia look much more like an occasionally occupied rural building than a typical family farm.

Archaeological investigations in the broader Corinthia can provide useful points of comparison. The typical surface signature of Classical–Hellenistic habitation documented by EKAS, which focused on the well-inhabited Isthmus, consisted of abundant pithoi, amphoras, storage vessels, kitchenwares, and painted roof tiles; fine wares were especially numerous. The more homogeneous assemblage at Ano Vayia finds local parallels with assemblages from some of the small forts and defensive outposts of Classical–Hellenistic date in Corinthian territory. Wiseman’s survey of the fort of Mt. Lysi in the Geranian pass, for instance, yielded only coarse-ware sherds and painted Laconian tiles,<sup>27</sup> and the watchtower at Ayios Sostis in the southern Corinthia produced mainly large coarse-ware vessels and painted Laconian tiles, with only small amounts of black-glazed ware.<sup>28</sup> Closer to the Vayia region, the systematic documentation of the Classical–Hellenistic fortifications in the Maritsa pass on Mt. Oneion recorded an assemblage comparable to the assemblages from Ano Vayia: predominantly tile, abundant amphoras (including Corinthian A and B), frequent coarse ware, infrequent kitchenware, and negligible fine ware.<sup>29</sup> While a few Corinthian fortification sites have produced the diverse array of pottery that one would expect from an ancient habitation,<sup>30</sup> this kind of site generally lacks abundant fine wares.

There is no single ceramic signature that can distinguish a Corinthian “fortified garrison” from a Corinthian “farmstead,” and we can expect there to be overlap in the types of signatures left by such buildings. Nonetheless, the ceramic assemblages at sites identified as garrisons, guard posts,

25. The archaeological signature of brothels, houses, and industrial spaces was one of the themes in the recent colloquium “Houses of Ill Repute: The Archaeology of Brothels, Houses, and Taverns in the Greek World” at the 110th Annual Meeting of the Archaeological Institute of America in Philadelphia (2009). In that colloquium, Kathleen Lynch discussed a Late Archaic Athenian household assemblage, comparing it with the rural Dema and Vari houses as well as with urban houses at Olynthos (Lynch 2009). One conclusion of that paper, and in fact, the entire session, was that fine wares, and specifically drinking cups, are proportionally dominant in Archaic and Classical domestic assemblages. See also Jones, Sackett, and Graham 1962;

Jones et al. 1973; and Foxhall 2001.

26. One could argue that the site was stripped of its occupational assemblage during or after abandonment, but occupation did, in fact, leave a signature in the form of numerous coarse-ware and pithos fragments in and around the structure. Since fine ware and cooking ware, moreover, are much more likely than coarse wares to fragment and generate sherds, we would have expected to find some sherds from these wares at the building if it had been occupied for a significant length of time. The rarity of fine ware and kitchenware most likely represents sporadic occupation and not intensive domestic habitation.

27. Wiseman 1978, pp. 20–22.

28. Wiseman 1978, pp. 114–116.

29. Caraher and Gregory 2006, pp. 340–345.

30. At the Late Classical tower and enclosure at Stanotopi on Mt. Oneion, for example, Stroud (1971a, pp. 130–131) recorded black-glazed fine-ware vessels (oinochoe, skyphoi, kantharoi), Corinthian A and B amphoras, Corinthian tiles, and painted Laconian roof tiles, although this diversity can be explained by longer use or more intensive occupation. In his examination of a Late Classical fortified garrison station at Kephalaria Station, located on a pass leading from Ayios Vasilios in the Corinthia to Mycenae, Wiseman (1978, pp. 118–120) recorded numerous surface sherds, including coarse wares and several types of fine wares (e.g., Corinthian, Argive, and black-glazed Attic).



and forts do tend to be simpler and more uniform than those found in specifically domestic contexts (with their diverse array of fine ware). Or, to put it another way, Corinthian fortifications typically produce less diverse and robust ceramic signatures because they represent less intensive and shorter-term episodes of habitation in the landscape than is typically the case for farmsteads. In light of these observations, we can associate the assemblage from Ano Vayia more closely with the assemblages of Classical and Hellenistic military buildings and forts in the Corinthia that have a predominantly coarse-ware signature and provide evidence for short-term occupation and use. As we argue below, however, this interpretation of Ano Vayia as a kind of garrison building finds support from additional forms of evidence, such as the nature of other sites in the area, Corinthian topography, and the general context of 5th–4th-century B.C. Corinthian history.

## CATALOGUE

The original study of the Ano Vayia ceramics in 2001 and 2003 by members of EKAS placed most of the material within the broad periods of Archaic–Classical or Archaic–Hellenistic. In 2008, a restudy of the pottery was undertaken by Sarah James, resulting in the following catalogue. The items included in the catalogue are intended to represent the overall assemblage in terms of chronology and range of types using the available data. The catalogue is based on a small sample of artifacts brought back to the Isthmia Excavation House. Many other artifacts that were analyzed according to chronotype procedures (see above) were left in the field, and for these we retained the date and identification assigned at the time of the original analysis; they were not part of this restudy.

As noted above, the assemblage is marked by the presence of a large pithos (with four nonjoining pieces) and several amphoras. The pithos (4) rim profile and fabric have tentatively been identified as dating to the Hellenistic period. A predominance of Corinthian B amphora sherds and handles supports a date from the 5th to 3rd century B.C. Additional chronological indicators are the numerous roof tiles, which are the typical Classical–Hellenistic type (6), and the fragment of an andesite hopper mill slab (8). Hopper mills are most common in the 4th–3rd century B.C. in the Corinthia and Argolid, which suggests a Hellenistic date for this piece.<sup>31</sup> In the virtual absence of fine ware, it is difficult to date this material more precisely than to within a couple of centuries.

Note that all catalogue measurements are in meters.

- |   |                                                                                                                                                                 |         |
|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| 1 | Cooking pot                                                                                                                                                     | Fig. 13 |
|   | 7615-510. P.L. 0.054, est. Diam. (rim) 0.120.                                                                                                                   |         |
|   | Medium-coarse yellowish red (5YR 4/6) clay with frequent small–large silver sparkling inclusions, frequent large white angular inclusions, and few large voids. |         |
|   | Ancient                                                                                                                                                         |         |
| 2 | Laconian cover tile                                                                                                                                             |         |
|   | 7612-4. Max. pres. dim. 0.059.                                                                                                                                  |         |

31. Kardulias and Runnels 1995, pp. 110, 121. More generally, hopper mills were in use throughout the Aegean from the late 5th century to the 1st century B.C., but they were most popular in the Early Hellenistic period; see, e.g., Pulak et al. 1987, pp. 41–42, no. HW 38, figs. 10, 11.

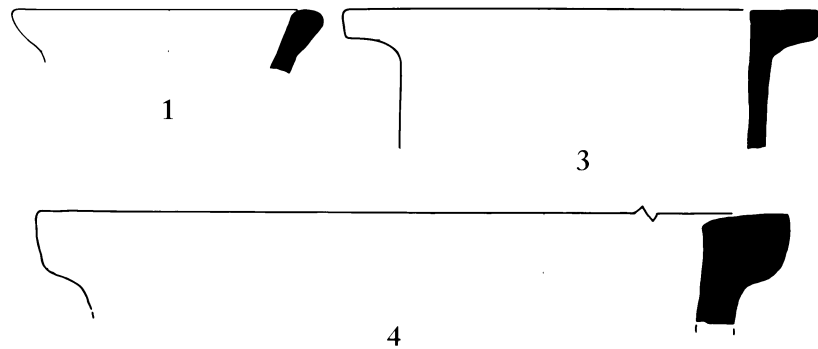


Figure 13. Pottery from Ano Vayia: cooking pot 1, Corinthian A amphora 3, and pithos 4. Scale ca. 1:4. Drawings K. R. Pettegrew, S. Van Horn, and W. R. Caraher

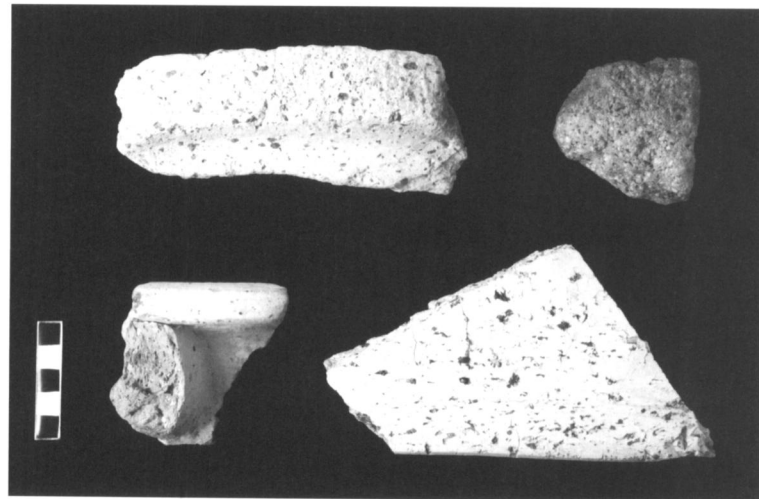


Figure 14. Artifacts from Ano Vayia. Clockwise from upper left: pithos 4, hopper mill fragment 8, Corinthian pan tile 7, Corinthian A amphora 3. Photo A. Porter

Medium-coarse yellow-red clay (5YR 5/6) with few small to medium-sized black and white inclusions and rare sparkling inclusions. Worn black paint on exterior and edge.

Archaic-Classical

3 Corinthian A amphora Figs. 13, 14  
7615-507. Th. (body) 0.010.

Coarse reddish yellow (7.5YR 7/6) clay with a dark gray core. Rare medium to very large angular gray and brown inclusions and rare very large voids.

Cf. example in Koehler 1978, pl. 14, no. 12.

Mid-6th century B.C.

4 Pithos Figs. 13, 14  
7615-501. Est. Diam. (rim) 0.50, Th. (body) 0.022.

Coarse, very pale brown clay (10YR 7/4) with common large to very large angular red inclusions and many voids in its pocked surface. Squared rim.

Hellenistic?

5 Table amphora  
7615-517. Est. Diam. (rim) 0.20, max. pres. dim. 0.034 × 0.051.

Medium-coarse, pale yellow (2.5Y 7/4) fabric with few small to medium black and red inclusions.

Classical-Hellenistic

## 6 Painted Laconian tile

7614-502. P.L. 0.107, p.W. 0.074, Th. (edge) 0.021, Th. (body) 0.017.

Coarse reddish yellow (7.5YR 8/6) fabric, pocked and eroded. Frequent medium to large red and white inclusions. Worn black paint. Slightly thickened edge. Classical-Hellenistic

## 7 Corinthian pan tile

Fig. 14

7605-1. P.L. 0.158, p.W. 0.094, Th. 0.025.

Coarse, pale brown fabric (10YR 7/4), cracked and pocked. Frequent very large black and gray inclusions with rare, angular, red and white inclusions. Archaic-Hellenistic.

## 8 Hopper mill

Fig. 14

7612-502. P.L. 0.07, Th. 0.03.

Lower slab fragment with diagonally incised lines. Andesite from Nisyros.

Cf. Pulak et al. 1987, pp. 41-42, no. HW 38, figs. 10, 11.

Probably 4th-3rd century B.C.

Figure 15 (*opposite, top*). The Lychnari tower, viewed from the north.

Photo K. R. Pettegrew

Figure 16 (*opposite, bottom*). Plan of the Classical-Hellenistic tower at Lychnari.

W. R. Caraher and D. K. Pettegrew

## LYCHNARI TOWER

The second site documented by EKAS lies on the hill of Lychnari, immediately to the west of the bay with the same name (Figs. 6, 15-17). On its eastern side, some 20 m to the southeast of a geodetic marker, are the remains of another round tower. Like the fortifications at Ano Vayia, the tower has coursed, rough polygonal masonry that includes stones of massive size. The walls are very well preserved, with an outer face of larger stones and an inner face of smaller, but still substantial, stones and with a cobble core between the faces. The outer face is traceable for two-thirds of the circuit and measures over 8.0 m in diameter, with walls over a meter in width. The inner face stands to a greater height than the outer face and gives the remains the appearance of a wedding cake's stepped construction. There is no reason, however, to think that this reflects the original design of the tower, as the top courses of the outer face are not finished and in several places reach the same height as the inner face.

Unfortunately, the preserved walls have a maximum height of only 1.5 m (Fig. 17), so little can be said regarding the original elevation of the tower. Young's informal estimate of heights for these towers, however, suggests that their height could be 2-2.5 times their diameter.<sup>32</sup> If this is even a rough indicator, the tower may have stood to over 15 m in height. Some indication of the original height of the tower might come from the low mound of material assembled around the base of the nearby geodetic marker. The marker stands ca. 2 m high on an artificial mound of earth and large stones. Among these stones are numerous blocks of pink and gray conglomerate. It seems probable that these stones were piled around the artificial mound for the geodetic marker both to prevent erosion and to elevate the marker above the level of the ruined tower. If these cut blocks originally came from the tumble of the nearby tower, they would suggest that the tower stood to a considerable height.

32. Young 1956b, pp. 134-135.

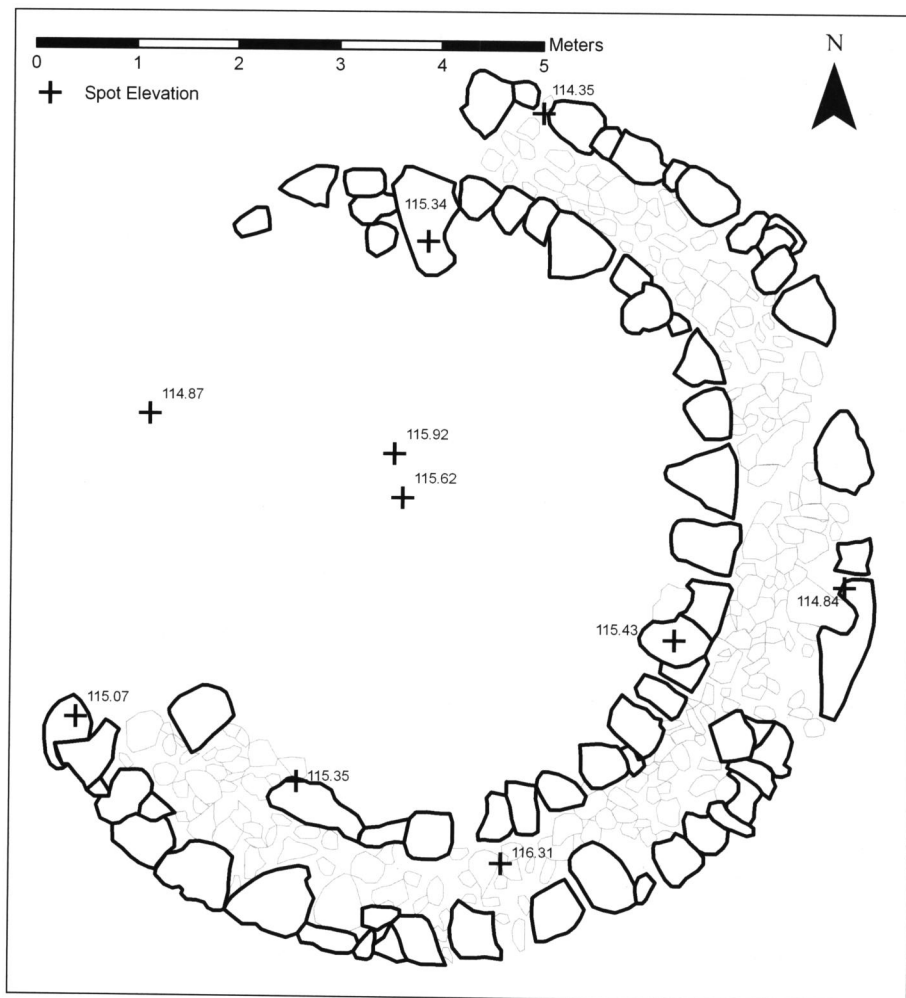
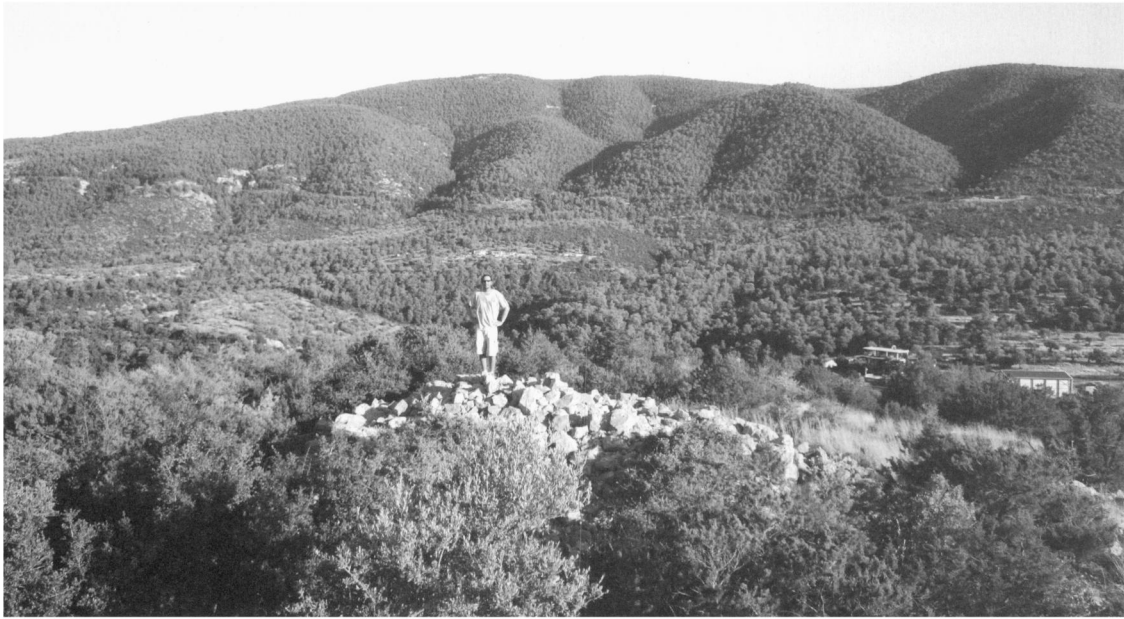




Figure 17. Section of the tower wall at Lychnari, viewed from the southwest. Photo W. R. Caraher

Another feature of this tower is worth noting. The tumble that fills the central part of the tower forms a small rounded depression ( $1.0 \times 0.60 \times 0.30$  m). Similar features have been noted in other rubble structures in the Corinthia. A possible parallel to this depression is found in the cairns documented by Dixon near the harbor of Korphos some 10 km to the south of Lychnari.<sup>33</sup> Dixon suggested that these features could be hollows that served as bases for herms or stelai marking the border between the Corinthia and the Epidauria during the Hellenistic period.<sup>34</sup> Across the bay of Lychnari, however, EKAS teams noted similar depressions in the cairns on the ridge of Vayia, which have been dated to the Early Bronze Age on the basis of material embedded in the cairns and the measurement of *rillenkarren* on the stones.<sup>35</sup> The cairns at both Korphos and Vayia vary in diameter from 5 to 10 m, as do the central depressions. Considering the differences in size, function, and date among the cairns, for now we can only regard this common feature on a case-by-case basis; at Lychnari, the depression in the center almost certainly relates to a postdepositional process that caused stones to be removed after the tower's collapse.

The tower at Lychnari can be dated to the Classical–Hellenistic period on the basis of pottery embedded in the building's tumble (Fig. 18) and scattered around the general area. The assemblage, which due to permit restrictions we could not document in detail, included fragments of pithoi, amphoras, Corinthian tiles, and painted tiles.<sup>36</sup> This chronological range would be consistent with the rough polygonal masonry style, and we can note for comparanda a similar tower documented by Lolos at the site of Tsakouthi in Sikyonia.<sup>37</sup> The Tsakouthi tower is 8.30 m in diameter, with a double wall approximately 1.30 m in width. Like the tower at Lychnari, the Tsakouthi tower was built in a rustic construction style, with few drafted edges and a rough combination of polygonal and trapezoidal blocks. Lolos dates this tower on the basis of its construction style and the artifacts in the area to after the 5th century B.C.<sup>38</sup>

33. Dixon 2000, pp. 87–89.

34. Dixon 2000, p. 89.

35. Tartaron, Pullen, and Noller 2006, p. 151.

36. We observed only one later ceramic fragment in the vicinity of the tower, a Broneer type XXVIIA lamp (late 1st–early 2nd century A.D.); see *Corinth* IV.2, pp. 90–102.

37. Lolos 1998, pp. 233–234.

38. Lolos 1998, p. 234.



Figure 18. Typical assemblage of tiles and coarse ware from Lychnari.  
Photo K. R. Pettegrew

## KATO VAYIA

The final group of architectural remains that is likely to date to the Classical–Hellenistic period is located at Kato Vayia on the Vayia peninsula, which projects northwestward into the Saronic Gulf and shelters the eastern side of the harbor of Lychnari (Figs. 4, 19, 20). The remains on the peninsula are so poorly preserved that it is not possible to determine their complete plan. They exist amid a scatter of ceramic material that is very similar to the utilitarian and coarse material found around Ano Vayia and the tower at Lychnari. Moreover, the rubble construction style is similar to that of the fortifications documented at both Stanotopi and on the heights of Mt. Oneion.

The most clearly defined features at Kato Vayia are a series of long rubble walls and extensive piles of tumble. The best-preserved wall runs for nearly 40 m from southeast to northwest, curving slightly to follow the natural contours of the ridge and bounding the western side of the level area along the top of the Vayia peninsula. This western wall is constructed of unworked, local gray limestone stacked in irregular courses to form two faces approximately a meter apart, with cobble fill between the faces.

The stretch of tumble eventually emerges as another clearly defined wall extending for close to 50 m, east to west, across the northern side of the ridge (see Fig. 20). Like the western wall, this wall follows the contours of the ridge and runs immediately above the steep slope that forms the northern side of the ridge. Unlike the western wall, however, this wall is more carefully articulated, showing clear right-angle turns that suggest buildings or rooms amid long stretches of tumble. The most well-defined structure occurs about midway along the northern wall, where a small, irregularly shaped building projects 3–3.5 m to the south. The walls of this small structure are 0.75 m wide and of the same construction style as the walls elsewhere on the ridge. About 4 m to the east of this building, the east–west wall takes a sharp turn toward the north and, after another 4 m, returns again to the east. It is possible that the small building in conjunction



**Figure 19.** Typical section of rubble wall at Kato Vayia, viewed from the west. Photo W. R. Caraher

with this abrupt zigzag in the wall's course could represent an entrance to an enclosure on the top of the ridge, although its western and southern sides are poorly preserved and its eastern wall is represented only by an extensive scatter of tumble.<sup>39</sup> Three walls of similar construction style mark out the remains of another small building measuring approximately 3.0 × 7.0 m in size, which abutted the northern side of the southern wall of the enclosure.

While it is impossible to offer a definitive interpretation of this complex of walls at Kato Vayia, the uniformity of the ceramics associated with the structures and the extensive system of rubble walls again suggest a fortification of the Classical–Hellenistic period. The closest analogy in the Corinthia for this kind of informal construction are the walls on Stanotopi and Oneion, which are similarly constructed of rubble masonry and situated atop strategically significant heights.<sup>40</sup>

39. The dense vegetation and carpet of pine needles obscure the course of the eastern wall. The only place where the remains are clearly articulated is on the southern side of the ridge.

40. Caraher and Gregory 2006; Stroud 1971a.

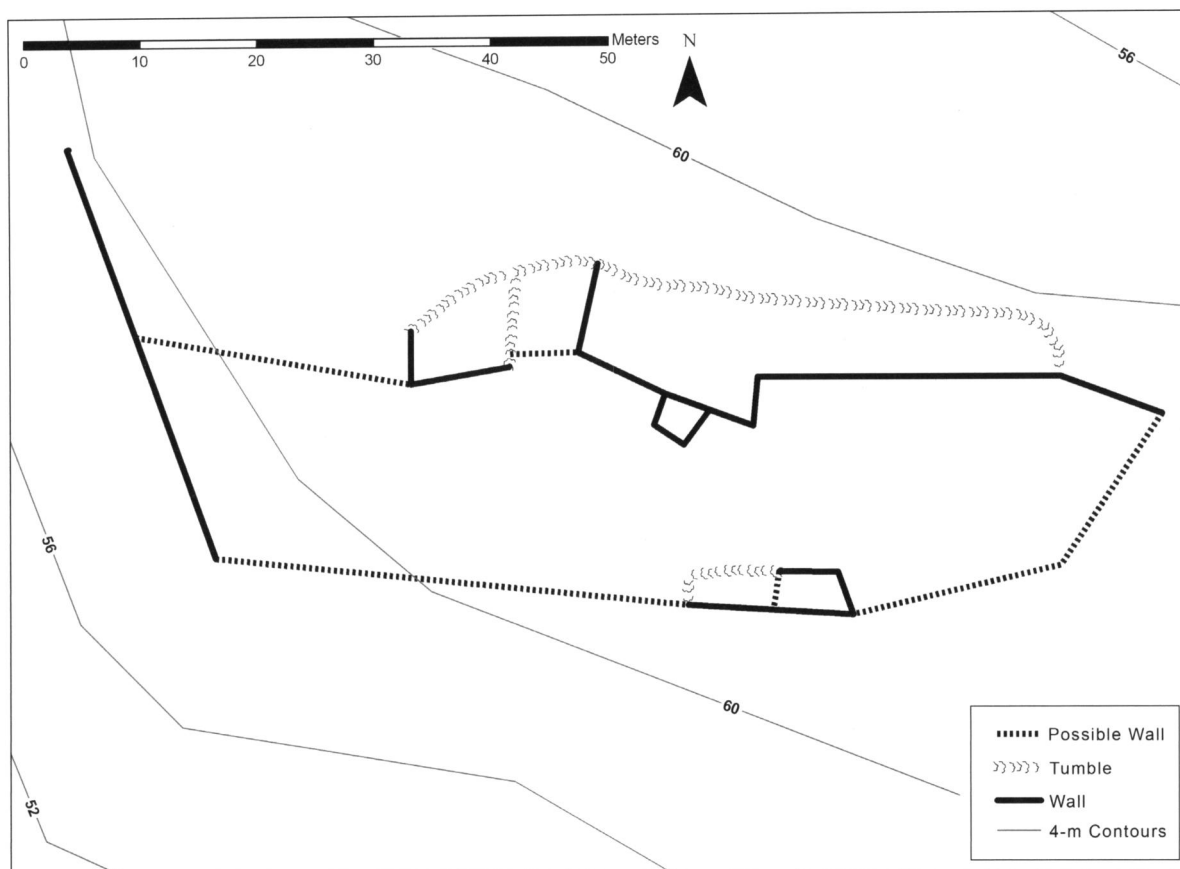


Figure 20. Plan of the Classical-Hellenistic fortifications at Kato Vayia. W. R. Caraher and D. K. Pettegrew

## DISCUSSION: FUNCTION, TOPOGRAPHY, AND HISTORY

Over the last several decades, regional programs of archaeological research have populated the Greek countryside with Classical and Hellenistic farmsteads, buildings, monuments, and places associated with the ephemeral activities of rural life. Among the most debated types of sites are rural towers, which recent scholarship has associated with guard stations and communication beacons, fortified farms, and outposts for intensive agricultural activities such as slave-driven mining endeavors.<sup>41</sup> In these assessments, outlined in the recent sweeping study by Morris and Papadopoulos,<sup>42</sup> Corinthian sites have remained conspicuously absent. This reflects the paucity of towers in the Corinthian countryside as well as the difficult nature of the written sources for the region's economy, settlement structure, and military organization. Despite the absence of scholarly discussion on

41. The works of Young and Fracchia established the basic criteria for assessing the function of tower sites in the Greek countryside. Young focused his work on towers in southeastern Attica and the island of Siphnos, and Fracchia extended his arguments to her

study of towers in the Argolid: Young 1956a, 1956b; Fracchia 1985. See also Osborne 1986, 1992.

42. Morris and Papadopoulos 2005. In addition to synthesizing and compiling research on a wide variety of Greek towers and rural installations

(pp. 157–167), the authors propose that many rural towers served to house slaves who worked with high-labor and high-value crops such as vines, or in mines such as those in southeastern Attica.



rural installations in the Corinthia, it is nevertheless clear from epigraphic sources and also from a growing body of data produced by archaeological surveys that Corinthians did live in the countryside, often at some distance from the urban core of Corinth.<sup>43</sup>

The fortifications near Vayia and Lychnari contribute to our understanding of the Corinthian countryside as well as to the broader topic of fortified rural structures in Greece. A careful examination of the remains at Vayia and around Lychnari Bay offers several reasons for concluding that these sites functioned to guard this agriculturally rich and strategically significant stretch of the Corinthian coastland. These arguments are based upon the associated artifact assemblage, architectural design of the buildings, and their place within the local topography.

As we have already seen, the artifact assemblage from Ano Vayia indicates low-intensity habitation in the countryside. The Lychnari tower and the rubble fortification at Kato Vayia also produced ceramic objects consistent with this assessment. The sites may have accommodated some short-lived domestic activities, but these were not sustained or permanent. Most critically, the sites near Vayia produced ceramic assemblages that bear little resemblance to those from long-term rural habitations identified elsewhere in the Corinthia or to those from typical Classical–Hellenistic farmsteads in Greece. On the other hand, the artifacts from these buildings do have immediate comparisons with material from Corinthian sites identified as fortifications and towers. For this reason, along with the reasons discussed below, we favor interpreting the sites at Vayia as buildings for small garrisons around Lychnari Bay.

The location of these towers in the local topography provides additional reason to conclude that they were principally used for protection and defense rather than domestic and agricultural enterprises. At the highest point in their landscapes, the Lychnari and Ano Vayia towers (Fig. 2) were not positioned to facilitate the economic exploitation of the local landscape. The towers are some distance removed from tillable land and cannot therefore be easily understood as part of intensive agricultural investment (e.g., viticulture) or the kind of intensive cultivation necessary to support rural industries such as mining—as scholars have posited for towers in other parts of the Greek world.<sup>44</sup> Indeed, throughout the eastern Corinthia, the EKAS project demonstrated that Classical–Hellenistic rural habitation tends to be concentrated on the most agriculturally productive land (e.g., the plain of the Isthmus) rather than on more marginal lands (e.g., the lower slopes of Oneion).<sup>45</sup> In this respect, it is interesting to note the lack of substantial Roman reuse of the sites of Lychnari and Ano Vayia,

43. For arguments based largely on epigraphical and literary evidence, see Stroud 1968; Salmon 1984, pp. 413–419; Stanton 1986; Dixon 2000, pp. 291–293. For recent discussions of Classical settlement in the eastern Corinthia, see Caraher, Nakassis, and Pettegrew 2006, pp. 14–21; Tartaron et al. 2006, pp. 494–513; Caraher et al. 2009.

44. Generally, see Morris and Papadopoulos 2005. Moreover, a number of towers in the Argolid and southern Corinthia do not occupy advantageous or superior topographic positions; see, e.g., Lord 1938, 1939; Lord, Frantz, and Roebuck 1941; Hjothman, Penttinen, and Wells 2005.

45. For Classical settlement on the

Isthmus, see Caraher, Nakassis, and Pettegrew 2006, pp. 14–21; Tartaron et al. 2006, pp. 494–513. See also Caraher et al. 2009, for discussion of the distributional data in the valley of Lakka Skoutara, near Sophiko, where Classical–Hellenistic material is common in the valley itself, but stops below the slopes.

which could indicate that later inhabitants viewed the location of these buildings as too marginal for agricultural exploitation.<sup>46</sup> The locations of the Lychnari and Ano Vayia structures in no way exclude typical agricultural activities—as the presence of the hopper mill fragment suggests—but these buildings were clearly not positioned to maximize such activity.

The visibility of these towers also complicates their identification as fortified homesteads for family farms. While their positions on top of the Lychnari and Ano Vayia ridges afforded commanding views of the landscape, they also increased their visibility and vulnerability from the principal land and maritime routes that they overlooked (see below). If the function of these towers was solely for local landowners to protect their own human or material property, there are more obvious locations that would have provided better views toward the land with less exposure to danger from the sea. We can contrast the towers near Lychnari with the pyramidal towers in the Argolid, which, as Fracchia observed, lacked the kind of commanding view appropriate for a watchtower. Notably, the towers in the Argolid also differed in the presence of dense scatters of ceramics and agricultural processing equipment consistent with rural habitation.<sup>47</sup>

The location of the towers and buildings at Vayia, however, does make sense if they functioned as military installations guarding agricultural land, transportation corridors, and coastal zones. The Lychnari tower is located at the top of the Lychnari hill and seems to be positioned to overlook the bay and the northern coast of the Corinthia (Figs. 4, 5), while the Ano Vayia tower overlooks the pass from Frangolimano as well as the Vayia River valley (Figs. 6, 7). Indeed, both towers were clearly intervisible (Figs. 2, 6) and presumably were placed to work together to monitor activities in the area of Lychnari and Vayia. The tower at Ano Vayia overlooked movement through the pass from Frangolimano as well as agricultural land to the south, but the height of the coastal ridge of Kaki Rachi compromised its view of the northern coast of the Corinthia and the Saronic Gulf islands. The tower on Lychnari, in contrast, did not offer a clear view of the pass but provided a good view of the northern coast of the Corinthia, including most of the Saronic Gulf and islands. Together, the fortifications could have functioned to hinder, block, or prevent enemy passage through two of the best natural harbors of the eastern Corinthia, Lychnari and Frangolimano.

In this respect, we see two plausible purposes served by the structures at Lychnari Bay. The first is that the towers functioned within a broader system of Corinthian defense aimed at preventing systematic incursion into the Corinthian *chora* by guarding or even blocking significant land and maritime transportation routes. Small garrison units stationed at Lychnari

46. (Late) Roman reuse of rural Classical–Hellenistic buildings and towers is very common in Greece generally (see Hjohlman, Penttinen, and Wells 2005; Pettegrew 2006) and in the Corinthia specifically, where the majority of Classical–Hellenistic sites (75% of EKAS units [n = 561 of 750]

and over 90% of larger sites) show evidence for Roman-period reuse. The reuse of sites is not only economically sensible, as it continues the material investment in buildings on the land, but it maintains and renews social ties to places over centuries.

47. Fracchia 1985, p. 688.

or Ano Vayia would, of course, have been no match for a full-scale invading army, but they could at least have communicated with forces positioned closer to the Isthmus (at Stanotopi, Oneion, and Kenchreai, and even Acrocorinth) and thereby provided an early warning signal of imminent danger to land closer to Corinth.<sup>48</sup> Since these other sites lacked a clear view of the bays along the southern coast of the Corinthia, the towers at Lychnari Bay could have provided a first watch. While it may be hard to imagine an invading army choosing this route for an attack on Corinth, it would have been foolish to leave the pass unguarded, for a force landing at Lychnari or Frangolimano and moving west into Corinthian territory would have been completely hidden by the coastal heights and out of view of Corinthian positions near Oneion and the Isthmus.

The role of towers in guarding passes and establishing regional military communication networks is well documented in nearby regions of the Greek mainland.<sup>49</sup> Ober and Munn have both shown how rural towers in Attica belonged to networks of routes, towers, and fortified sites that functioned together for local defense in the Late Classical world.<sup>50</sup> Recently, Lolos and Marchand have demonstrated the close link between towers and roads, arguing that city-states used towers to control traffic through the countryside.<sup>51</sup> As noted above, Lolos documented a tower at Tsakouthi in Sikyonia that is similar in size and construction technique to the round tower on the height of Lychnari; he argued that it overlooked a significant roadway linking the Sikyonian plain to the region around Stymphalos.<sup>52</sup> In these contexts, rural towers functioned mainly as signal stations across the countryside, connecting military forces, rural communities, and polis centers separated by long distances and rocky terrain. The impressive views afforded the Lychnari and Ano Vayia towers must have extended the influence of any force stationed in the fortifications on the Vayia peninsula.

The fortifications of Vayia and Lychnari also find good parallels in Corinthian (and their allies') efforts to guard or block vulnerable passes in the mountainous regions of Corinth. Wiseman, Smith, and others have associated a network of towers with the road network that passes from the southern Megarid into the Corinthia via either the Kaki Skala or over passes through Mt. Geraneia.<sup>53</sup> Further south, the large and complex fortified site of Ayia Paraskevi, near the modern village of Sophiko, overlooks a fertile plain and several major lines of communication and travel through the southeastern Corinthia.<sup>54</sup> While this site could represent a fortified outpost for a village of the Corinthian interior, its position also suggests a military function not unlike that of the "border forts" along the Attic-Boiotian frontier.<sup>55</sup> Similarly, the impressive array of rubble fortifications

48. Wiseman 1978, p. 58.

49. Although the military interpretation has been critiqued and has often been replaced by agricultural explanations, it still works well for certain regions. For summary of recent work, see Morris and Papadopoulos 2005, pp. 157–167.

50. Ober 1985; Munn 1993.

51. See Lolos 1998, pp. 242–244;

Marchand 2009, pp. 130–137.

52. Lolos 1998, pp. 233–234.

53. Wiseman 1978, p. 17; Smith 2008, pp. 24–25. For Geraneia, see Wiseman 1978, pp. 24–26; Smith 2008, pp. 31–32.

54. See n. 2, above.

55. There is evidence that the fortification at Ayia Paraskevi even had peripheral fortification in the area,

which would have allowed it to monitor its neighborhood more effectively; see Dixon 2005. For the "border forts" of Attica and Boiotia, see Ober 1983, 1985, 1987a, 1987b; Cooper 1986, 2000; Camp 1991; and Munn 1993. For Corinthian tribes and trittyes, see Stroud 1968; Salmon 1984, pp. 413–419; and Stanton 1986.

along the ridge of Oneion must represent efforts to control passage across the eastern ridge of the mountain and through the rugged interior of the Corinthia—even if those walls should represent a temporary occupation by a foreign power.<sup>56</sup> In this respect, it is worth noting the frequency of Classical–Hellenistic rural towers and buildings of military function at higher elevations in the eastern Corinthia. Such a consistent pattern highlights the close connection of the region with travel corridors and the interest in guarding its territory. Whether this impetus for fortifying the southeast Corinthia was essentially centralized (from the state of Corinth itself) or decentralized (depending on groups of local landowners) is beyond the threshold of our evidence.

A second plausible purpose served by the fortifications in the Vayia region may have been to house small garrisons stationed to provide immediate and effective response to small-scale raids and banditry on agricultural lands west of the bay. In this scenario, soldiers stationed in fortified camps such as that at Kato Vayia could have forestalled opportunistic raiding episodes that would damage local agricultural endeavors and domestic facilities such as farms and storage facilities. Protection of this sort would have been particularly important during certain seasons, such as the late spring grain harvest and the late fall olive harvest.<sup>57</sup> We can also expect that such fortifications could have provided protection both for and from forces engaged in naval activities in the Saronic Gulf (see below).

Use of the site at Kato Vayia to house garrisons makes sense in view of the informal yet substantial rubble walls found there. The site finds parallels with the so-called fortified camps in Attica documented by McCredie,<sup>58</sup> such as the hastily fortified positions at Koroni.<sup>59</sup> Both Koroni and Vayia stand on a coastal peninsula with easy access to a protected natural embayment, and in construction, both share a casemate style of architecture with small rooms constructed in drystone masonry stacked against a fortification wall.<sup>60</sup> While the precise function of the substantial fortified site of Koroni is disputed,<sup>61</sup> the small size and informal construction style of the Vayia fort would fit McCredie's criteria for fortified camps. A force stationed at Kato Vayia would have been able to respond quickly to small forces attempting to come ashore in Lychnari Bay or the Vayia River delta or pass through the valley from the east.

The imprecise dates for the ceramic material at Vayia and the paucity of literary sources that deal directly with Corinthian affairs during the Classical and Hellenistic periods make it difficult to do more than speculate on the occasion for the construction of the fortifications.<sup>62</sup> On the one hand, the

56. Stroud 1971a; Caraher and Gregory 2006.

57. Morris and Papadopoulos 2005, pp. 158–163.

58. McCredie 1966.

59. Vanderpool, McCredie, and Steinberg 1962.

60. The absence of evidence for trimming stones to fit in the wall may indicate hasty construction at both Koroni and Vayia, comparable to the

fortifications on both Oneion and Stanotopi. This pattern could suggest short-term response to some emergency or strained military or political circumstances. The evidence for later repair or modification is even more informal than that for the building's original construction, suggesting that the *ad hoc* nature of the structure carried through its entire life span. The shoddy construction of the apparent repairs and

ancillary walls seems more appropriate if we consider this building to have been occupied episodically rather than in a systematic or consistent fashion.

61. See Lauter-Bufe 1989; Caraher and Gregory 2006, p. 347.

62. See comments in Stroud 1971a, pp. 139–145; 1971b; Caraher and Gregory 2006, pp. 345–347.

coarse archaeological dating means that the fortifications discussed in this article can only be broadly dated to the 5th to 3rd centuries B.C., and may have been used and developed episodically over these three centuries. It is possible, then, that more than one of the scenarios proposed here apply to the site as it was used over time. On the other hand, the general dearth of textual evidence for exurban activities provides the greatest challenge for any scholar intent on advancing an argument about the function of towers in the Greek countryside. Textual evidence can provide suitable background contexts—contemporary political or military conditions—against which the archaeological remains stand out.

Despite the lack of specificity in the textual sources, we do have a body of fragmentary literary evidence that provides potential context for the informal rural fortifications documented around Lychnari Bay. Throughout the Classical and Hellenistic periods, there were numerous opportunities and reasons to erect fortifications along the Saronic Gulf. In the 5th century, these sites protected the Corinthian coast against opportunistic raids by sea, such as the Athenian sack of Solygeia in 425 B.C., which demonstrated the vulnerable state of Corinthian territory south of the Isthmus.<sup>63</sup> Thucydides also describes a clash in 412 B.C. between Athenian and Peloponnesian forces in the Saronic Gulf at the deserted harbor of Speiraion, north of the Corinthia-Epidauria frontier.<sup>64</sup> In that account, Athenian naval forces stationed on a Saronic island followed a Peloponnesian fleet of three dozen ships, attacking them in the harbor and on the beach. The Peloponnesians despaired of guarding their ships in such a deserted place, and even considered burning them, but eventually resolved to pull their entire fleet high onto dry land and station their troops nearby. Corinthians and other neighboring inhabitants arrived the following day to reinforce them, and the Peloponnesian fleet shortly thereafter made a sally and escaped to Kenchreai. While there would be problems in identifying Speiraion with Vayia,<sup>65</sup> this account suggests another possible scenario for the origin of fortified garrisons along the southern Corinthian coast, and shows the way in which neighboring troops (πρόσχωροι) were useful for defending even relatively isolated harbors.

By the 4th century, Corinth was fully engaged in the tumultuous politics of internecine warfare, and the movement of troops through Corinthian territory demonstrated both the vulnerability of the city's *chora* and the need to fortify specific corridors through the territory. In 370/69, for example, Theban troops under Epaminondas passed easily through the eastern part of the Corinthia.<sup>66</sup> In 366, the Argive general Peisias moved troops from Argos to the heights of Oneion through the rolling hills north of Solygeia, showing a viable route from (and into) the Peloponnese that bypassed the traditional concentration of Corinthian fortifications around the polis center.<sup>67</sup> Such examples highlight how the regular movement of troops through the Corinthian *chora* in the early 4th century precipitated an increased effort to maintain guards, fortifications, and forces in the countryside. We know, for example, that as early as 366 B.C. the Athenians placed garrisons throughout the Corinthian countryside, which were soon replaced by Corinthian forces when political relations between the two states soured.<sup>68</sup> We can easily imagine that these forces could have constructed rubble fortifications such as those near Vayia.

63. For Solygeia, see Thuc. 4.42–45; Fowler 1932, pp. 97–99; Stroud 1971b; 1994, pp. 269–280; Wiseman 1978, pp. 56–58.

64. Thuc. 8.10–15, 20. See Wiseman 1978, pp. 136–140; Salmon 1984, pp. 5–7, 336–338; Stroud 1994, pp. 297–299; Dixon 2000, pp. 77–78.

65. Wiseman (1978, p. 140) and Salmon (1984, pp. 5–7) have identified Speiraion with the harbor of Korphos, further to the south. Dixon (2000, p. 78) has suggested that the neighborhood forces might have been stationed at the nearby tower of Ara Bartze.

66. Xen. *Hell.* 6.5.50–52. See Stroud 1971a, p. 139; Caraher and Gregory 2006, p. 346.

67. Xen. *Hell.* 7.1.42. See Stroud 1971a, pp. 140–141.

68. Xen. *Hell.* 7.4.4–5. See Stroud 1971a, p. 140.

There were also occasions for fortification throughout the early Hellenistic period. Stroud asserts that Philip of Macedon probably fortified key parts of the Corinthia, even if we have no idea about the specific locations.<sup>69</sup> At the end of the 4th century, Alexander, son of Polyperchon, seems to have fortified points in the eastern Corinthia to prevent Kassander from taking the city.<sup>70</sup> Diodorus Siculus reports that there were two forts near the port town of Kenchreai; Stroud and others have associated these with the informal rubble fortifications on Mt. Oneion.<sup>71</sup> The fortifications mentioned in this survey reveal the challenges facing any effort to link the fragmentary textual sources for the history of Corinth's territory to specific sites during the later 4th and 3rd centuries. At the same time, these sources indicate that there were more episodes of fortifying the Corinthia than we can securely identify in the archaeological record. It is reasonable to believe that some of these efforts to fortify the Corinthia involved garrisons who constructed informal outposts to guard the countryside and the coastal inlets to the territory.

The textual evidence for placing garrisons and forts in the countryside provides more than one plausible context for the construction of fortifications around Lychnari Bay. As we suggested above, these structures, which share with other Corinthian towers a similar place in local topography, design, and construction style, represent efforts to safeguard the Corinthian *chora*, the garrisons stationed on the coast, and the major routes into the region. If their rough construction and irregular design indicate a less significant investment in the countryside than the rural towers typically studied by scholars, these features are nevertheless consistent with the episodic character of rural Corinthian fortifications in general.

Historical evidence for Corinthian fortification during the Classical–Hellenistic period has tended to focus on efforts to block military forces from moving through the Isthmus.<sup>72</sup> Generally, the various states that sought to fortify the Isthmus were not concerned with defending Corinthian territory and interests per se. In contrast to these better-known fortifications, the towers and sites at Vayia did little to protect the Peloponnesians generally, for armies moving southward could easily bypass them by sea and land in the vicinity of Epidaurus, where there was a more convenient point of access to the Peloponnesian centers at Argos and further south.<sup>73</sup> It is logical to read the sites at Vayia instead as installations of the Corinthian state or local Corinthian citizen landowners, whose aim in fortifying was to prevent episodic but destructive local raids and to guard against incursions deep into Corinthian territory. The ease with which an army could pass north from the bay at Lychnari or even Frangolimano and ravage the Corinthian *chora*, or continue north to Oneion and the Isthmus, made the fortification of this coastline a crucial component of any strategy to protect Corinthian territory, and turned these informal fortifications into a significant feature of Corinth's landscape.

69. Stroud 1971a, p. 142.

70. Diod. Sic. 19.63.4. See Stroud 1971a, p. 142.

71. Stroud 1971a, p. 143; Caraher and Gregory 2006, pp. 346–347.

72. Wiseman 1963.

73. Diod. Sic. 19.54.3.

## REFERENCES

- Bintliff, J., P. Howard, and A. Snodgrass. 2007. *Testing the Hinterland: The Work of the Boeotia Survey (1989–1991) in the Southern Approaches to the City of Thespiiai* (McDonald Institute for Archaeological Research, Monographs), Cambridge.
- Camp, J. McK., II. 1991. "Notes on the Towers and Borders of Classical Boiotia," *AJA* 95, pp. 193–202.
- Caraher, W. R., and T. E. Gregory. 2006. "Fortifications of Mount Oneion, Corinthia," *Hesperia* 75, pp. 327–356.
- Caraher, W. R., T. E. Gregory, D. K. Pettegrew, and L. Tzortzopoulou-Gregory. 2009. "Between Sea and Mountain: The Archaeology of a 20th-Century 'Small World' in the Upland Basins of the Southeastern Korinthia" (paper, Modern Greek Studies Association, Symposium 21, Vancouver 2009).
- Caraher, W. R., D. Nakassis, and D. K. Pettegrew. 2006. "Siteless Survey and Intensive Data Collection in an Artifact-Rich Environment: Case Studies from the Eastern Corinthia, Greece," *JMA* 19, pp. 7–43.
- Cooper, F. A. 1986. "Epaminondas and Greek Fortifications," *AJA* 90, p. 195 (abstract).
- . 2000. "The Fortifications of Epaminondas and the Rise of the Greek City," in *City Walls: The Urban Enceinte in Global Perspective* (Studies in Comparative Early Modern History), ed. J. Tracy, Cambridge.
- Corinth = Corinth: Results of Excavations Conducted by the American School of Classical Studies at Athens*, Cambridge, Mass.
- I.1 = H. N. Fowler and R. Stillwell, *Introduction, Topography, Architecture*, 1932
- IV.2 = O. Broneer, *Terracotta Lamps*, 1930
- Dixon, M. 2000. "Disputed Territories: Interstate Arbitrations in the Northeastern Peloponnese, ca. 250–150 B.C." (diss. Ohio State Univ.).
- . 2005. "Epigraphy and Topographical Survey: The Case of the Corinthian-Epidaurian Border in the Hellenistic Period," in *Ancient Greece at the Turn of the Millennium: Recent Work and Future Perspectives. Proceedings of the Athens Symposium, 18–20 May 2001*, ed. N. M. Kennell and J. E. Tomlinson (Publications of the Canadian Archaeological Institute at Athens 4), Athens, pp. 137–145.
- Fowler, H. N. 1932. "Corinth and the Corinthia," in *Corinth* I.1, pp. 18–114.
- Foxhall, L. 2001. "Colouring in the Countryside: Response to David K. Pettegrew, 'Chasing the Classical Farmstead,'" *JMA* 14.2 (December 2001), *JMA* 14, pp. 216–222.
- Fracchia, H. M. 1985. "The Peloponnesian Pyramids Reconsidered," *AJA* 89, pp. 683–689.
- Hjohlman, J., A. Penttinen, and B. Wells. 2005. *Pyrgouthi: A Rural Site in the Berbati Valley from the Early Iron Age to Late Antiquity: Excavations by the Swedish Institute at Athens, 1995 and 1997* (*SkrAth* 4°, 52), Stockholm.
- Jones, J. E., A. J. Graham, L. H. Sackett, and M. I. Geroulanos. 1973. "An Attic Country House below the Cave of Pan at Vari," *BSA* 68, pp. 355–452.
- Jones, J. E., L. H. Sackett, and A. J. Graham. 1962. "The Dema House in Attica," *BSA* 57, pp. 75–114.
- Kardulias, P. N., and C. N. Runnels. 1995. "The Lithic Artifacts: Flaked Stone and Other Nonflaked Lithics," in *Artifact and Assemblage: The Finds from a Regional Survey of the Southern Argolid, Greece*, ed. C. N. Runnels, D. J. Pullen, and S. Langdon, Stanford, pp. 74–139.
- Koehler, C. G. 1978. "Corinthian A and B Transport Amphoras" (diss. Princeton Univ.).
- Lauter-Bufe, H. 1989. "Die Festung auf Koroni und die Bucht von Porto Raphiti: Ein Beitrag zur Geschichte Athens im 3 Jh. v. Chr.," in *Attische Festungen: Beiträge zum Festungswesen und zur Siedlungsstruktur vom 5. bis zum 3. Jh. v. Chr.* (Attische Forschungen 3, *MarbWPr* 1988), ed. H. Lauter, H. Lauter-Bufe, and H. Lohmann, Marburg, pp. 67–102.
- Lolos, Y. A. 1998. "Studies in the Topography of Sikyonia" (diss. Univ. of California, Berkeley).
- Lord, L. E. 1938. "The 'Pyramids' of Argolis," *Hesperia* 7, pp. 481–527.
- . 1939. "Watchtowers and Fortresses in Argolis," *AJA* 43, pp. 78–84.
- Lord, L. E., M. A. Frantz, and C. Roebuck. 1941. "Blockhouses in the Argolid," *Hesperia* 10, pp. 93–112.
- Lynch, K. 2009. "Pottery from a Late Archaic House by the Numbers," *Archaeological Institute of America, 110th Annual Meeting Abstracts* 32, Philadelphia, pp. 163–164.
- Marchand, J. C. 2009. "Kleonai, the Corinth–Argos Road, and the 'Axis of History,'" *Hesperia* 78, pp. 107–163.
- McCredie, J. R. 1966. *Fortified Military Camps in Attica* (*Hesperia* Suppl. 11), Princeton.
- Morris, S. P., and J. K. Papadopoulos. 2005. "Greek Towers and Slaves: An Archaeology of Exploitation," *AJA* 109, pp. 155–226.
- Munn, M. H. 1993. *The Defense of Attica: The Dema Wall and the Boiotian War of 378–375 B.C.*, Berkeley.
- Ober, J. 1983. "Two Ancient Watchtowers above Aigosthena in the Northern Megarid," *AJA* 87, pp. 387–392.
- . 1985. *Fortress Attica: Defense of the Athenian Land Frontier, 404–322 B.C.* (*Mnemosyne* Suppl. 84), Leiden.
- . 1987a. "Early Artillery Towers: Messenia, Boiotia, Attica, Megarid," *AJA* 91, pp. 569–604.
- . 1987b. "Pottery and Miscellaneous Artifacts from Fortified Sites in Northern and Western Attica," *Hesperia* 56, pp. 197–227.
- Osborne, R. 1986. "Island Towers: The Case of Thasos," *BSA* 81, pp. 167–178.
- . 1992. "Is It a Farm? The Definition of Agricultural Sites and Settlements in Ancient Greece," in *Agriculture in Ancient Greece. Proceedings of the Seventh International Symposium at the Swedish Institute at Athens, 16–17 May, 1990*, ed. B. Wells (*SkrAth* 4°, 42), Stockholm, pp. 21–28.
- Peppas, Y. 1990. *Μεσαιωνικές σελίδες της Αργολίδος, Αρκαδίας, Κορινθίας, Αττικής*, Athens.

- . 1993. *Μεσαιωνικές σελίδες της Κορινθίας*, Athens.
- Pettegrew, D. K. 2001. "Chasing the Classical Farmstead: Assessing the Formation and Signature of Rural Settlement in Greek Landscape Archaeology," *JMA* 14, pp. 189–209.
- . 2002. "Counting and Coloring Classical Farms: A Response to Osborne, Foxhall, and Bintliff et al.," *JMA* 15, pp. 267–273.
- . 2006. "Refurbishing the Farms: The Reuse of the Rural Landscape in Late Roman Greece," in *Common Ground: Archaeology, Art, Science, and Humanities. The Proceedings of the 16th International Congress of Classical Archaeology, Boston, August 23–26, 2003*, ed. C. C. Mattusch, A. A. Donohue, and A. Brauer, Oxford, pp. 33–35.
- . 2007. "The Busy Countryside of Late Roman Corinth: Interpreting Ceramic Data Produced by Regional Archaeological Surveys," *Hesperia* 76, pp. 743–784.
- Pulak, C., R. F. Townsend, C. G. Koehler, and M. B. Wallace. 1987. "The Hellenistic Shipwreck at Serçe Limani, Turkey: Preliminary Report," *AJA* 91, pp. 31–57.
- Salmon, J. B. 1984. *Wealthy Corinth: A History of the City to 338 B.C.*, Oxford.
- Smith, P. J. 2008. *The Archaeology and Epigraphy of Hellenistic and Roman Megaris, Greece (BAR-IS 1762)*, Oxford.
- Stanton, G. R. 1986. "The Territorial Tribes of Corinth and Phleious," *CLAnt* 5, pp. 139–153.
- Stroud, R. S. 1968. "Tribal Boundary Markers from Corinth," *CSCA* 1, pp. 233–242.
- . 1971a. "An Ancient Fort on Mount Oneion," *Hesperia* 40, pp. 127–145.
- . 1971b. "Thucydides and the Battle of Solygeia," *CSCA* 4, pp. 227–247.
- . 1994. "Thucydides and Corinth," *Chiron* 24, pp. 267–302.
- Tartaron, T. F., T. E. Gregory, D. J. Pullen, J. S. Noller, R. M. Rothaus, J. L. Rife, L. Tzortzopoulou-Gregory, R. Schon, W. R. Caraher, D. K. Pettegrew, and D. Nakassis. 2006. "The Eastern Korinthia Archaeological Survey: Integrated Methods for a Dynamic Landscape," *Hesperia* 75, pp. 453–523.
- Tartaron, T. F., D. J. Pullen, R. K. Dunn, L. Tzortzopoulou-Gregory, A. Dill, and J. I. Boyce. Forthcoming. "The Saronic Harbors Archaeological Research Project (SHARP): Investigations at Mycenaean Kalamianos, 2007–2009," *Hesperia* 80.
- Tartaron, T. F., D. J. Pullen, and J. S. Noller. 2006. "Rillenkarran at Vayia: Geomorphology and a New Class of Early Bronze Age Fortified Settlement in Southern Greece," *Antiquity* 80, pp. 145–160.
- Vanderpool, E., J. R. McCredie, and A. Steinberg. 1962. "Koroni: A Ptolemaic Camp on the East Coast of Attica," *Hesperia* 31, pp. 26–61.
- Whitelaw, T. 1998. "Colonisation and Competition in the Polis of Keresos: The Development of Settlement in North-West Keos from the Archaic to the Late Roman Periods," in *Kea-Kythnos: History and Archaeology. Proceedings of an International Symposium, Kea-Kythnos, 22–25 June 1994* (Melete-mata 27), ed. L. G. Mendoni and A. J. Mazarakis Ainian, Paris, pp. 227–257.
- Wiseman, J. R. 1963. "A Trans-Isthmian Fortification Wall: Notes on Hellenistic Military Operations in the Corinthia," *Hesperia* 32, pp. 248–275.
- . 1978. *The Land of the Ancient Corinthians (SIMA 50)*, Göteborg.
- Young, J. H. 1956a. "Ancient Towers on the Island of Siphnos," *AJA* 60, pp. 51–55.
- . 1956b. "Studies in South Attica: Country Estates at Sounion," *Hesperia* 25, pp. 122–146.

### William R. Caraher

UNIVERSITY OF NORTH DAKOTA  
DEPARTMENT OF HISTORY  
276 CENTENNIAL DRIVE  
MERRIFIELD HALL, STOP 8096  
GRAND FORKS, NORTH DAKOTA 58201  
william.caraher@und.edu

### David K. Pettegrew

MESSIAH COLLEGE  
DEPARTMENT OF HISTORY  
ONE COLLEGE AVENUE  
BOX 3051  
GRANTHAM, PENNSYLVANIA 17027  
dpettegrew@messiah.edu

### Sarah James

UNIVERSITY OF TEXAS AT AUSTIN  
DEPARTMENT OF CLASSICS  
1 UNIVERSITY STATION C3400  
AUSTIN, TEXAS 78712-0308  
sarah.james@mail.utexas.edu