A LATE MEDIEVAL SETTLEMENT AT PANAKTON

ABSTRACT

Excavations in 1991 and 1992 partially uncovered the remains of the late medieval village that overlies the ruins of ancient Panakton. Dated to the 14th and early 15th century, the settlement was built and occupied at a time in which central Greece was ruled by competing Western powers; both the identity of the residents and the medieval name of the village remain open questions. This report presents the domestic structures excavated to date, as well as the ceramics, coins, and tools associated with rural life and the agrarian economy. The report also discusses the village’s central church, its carved and painted decoration, and the burials that surrounded it.

INTRODUCTION

Panakton is located above the village of Prasino on a summit of the Parnes-Kithairon ridgeline, midway between Athens and Thebes (Figs. 1, 2). Dominated by the higher peaks of Parnes to the east and Kithairon to the west, Panakton commands wide views to the north and south and is conspicuous from many directions. Athens, Megara, and Thebes are hidden behind intervening ridges, but from the ruined medieval tower at the

1. This report represents the work of several individuals. The first four sections (Introduction, Site Survey, Excavation Methodology, and Domestic Architecture) and the last (Historical Summary) were coauthored by Sharon E. J. Gerstel and Mark Munn; Gerstel is also responsible for the discussion of the central church, the ceramic finds, and Appendix 1. The remaining sections are by Heather E. Grossman (Architectural Sculpture) and Ethne Barnes and Arthur H. Rohn (Medieval Burials); Appendix 2 is by Machiel Kiel. We thank David Jacoby and Amy Papalexandrou for commenting on an early draft of this article. We are grateful to the Hesperia reviewers for their thorough and insightful comments. We also wish to thank all of those named in the Acknowledgments at the end of this article.

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Unless otherwise noted, all illustrations are from the project archives.
summit of Panakton (elevation 714 masl; Fig. 3), stretches of the main routes between these centers are in clear view. The site is also situated between two important Byzantine monasteries. Hosios Mletoios can be seen on the lower slopes of Kithairon just over 4 km to the west. The church now dedicated to the Virgin, Zoodochos Pege, once the katholikon of a large monastery affiliated with Hosios Mletoios, is located on the north face of a ridge bounding the Skourta Plain. The plain (average elevation 530 masl) extends north and east from the foot of Panakton. In the Middle Byzantine period, its principal settlements were located at Loukisia near Prasino and at Ayios Nikolaos and Ayios Georgios near modern Skourta. The five modern settlements in this upland basin, known as the Dervenochoria, “villages guarding the passes,” include Pyli (formerly Derveno Salesi or Salesat), Skourta, Stephani (formerly Krora), Panakto (formerly Kakos Niskiri), and Prasino (formerly Kavasala). These villages, built in the Turkish period, flanked an ancient and medieval route that passed through the mountains and connected Attica with Bceotia. Early travelers to the region followed the same route. Although they left vivid accounts of the plain’s residents, agricultural features, and domestic architecture, their descriptions provide little information about its antiquities.

The identification of the archaeological ruins on this hilltop, most notably the ancient fortification walls, has been of interest to scholars of ancient Greek history; it is now generally agreed that these remains mark the site of Panakton, a Classical garrison fortress first mentioned by Thucydides. The investigation of the Classical and Early Hellenistic phases of Panakton promises to yield information about the construction, population, and function of Attic border fortresses. Of no less importance, however, are the site’s late medieval remains, the houses and small chapels of an agrarian village. While medieval settlements of this type are well attested in written sources, the physical remains of actual villages have yet to be fully explored. Panakton’s location within territories held by Western rulers makes its investigation particularly interesting and raises questions about the daily lives of Byzantine peasants, now under foreign overlordship.

2. It is now generally accepted that the monastery should be identified as that of the Mother of God, mentioned in the Life of St. Mletoios. See Bouras 1993–1994, p. 34.


5. Koder and Hild 1976, p. 96. For the modern history of the villages, see Teves 1928, pp. 380–384. For the role of the Dervenochoria in the Turkish administration of the region, see Giannopoulos 1971, pp. 141–146. See also Appendix 2.


7. Thuc. 5.3.5, 18.7, 39.2–3; 5.42. For the identification of the site as Panakton, see Vanderpool 1978.


10. Historians and art historians have previously studied questions of identity of local populations under foreign rule in the medieval Mediterranean. The Panakton remains provide the opportunity to investigate the dynamics of relationships between the indigenous, Orthodox population and Western rulers in an archaeological context.
The excavation of medieval Panakton provides a wealth of material for the study of medieval villages in general. Finds from the central church offer information about the painting and furnishing of a small religious structure as well as materials for the analysis of skeletal remains and burial practices at the village level. The study of sculpture used to adorn the building reveals close connections with the work of artisans also responsible for the 12th-century decoration of the nearby monastery of Hosios Meletios and its metochia (monastic dependency) and suggests further avenues for the investigation of regional workshops and the secondary use of ecclesiastical carving. Analysis of Panakton's ceramics raises questions about the distribution of functional wares as well as the location of a regional workshop that produced most of the vessels on site. The excavation of the village's houses yields information about domestic architecture and daily life in the late medieval period for a segment of society that has left virtually no written records.

Two years of investigation have revealed a short-lived settlement dependent on agricultural production. The hardship of daily life is evidenced by stress marks permanently impressed on the bones of both men and women buried in and around the church. That the villagers were engaged in cultivation is revealed in the agricultural tools, such as a plowshare (24), and large storage vessels that were found within domestic contexts (18, 19). The absence of costly articles of personal adornment or numerous imported ceramic vessels suggests that the economic level of the inhabitants was not high. The finest glazed vessels and most precious metal objects were associated with the church; simple sgraffito bowls and plain wares sufficed for the home. Although the precise identity of the villagers
and the medieval name of Panakton remain open questions, we propose that the inhabitants of the settlement were Orthodox. Their religious identity is manifested in finds recovered in the church, including a possible asterisk (63) and a large section of a templon epistle (71). The residents remembered their Byzantine past through their reuse of sculpture carved during imperial control of the region and through the possession of Byzantine coins, long out of circulation, one of them pierced for suspension (see Appendix 1). We suggest, on the basis of textual sources, that Panakton in the late medieval period was held by a foreign landlord, in the manner described in Catalan documents for other agrarian settlements in this region during this period, and that the prominent tower that crowned the settlement proclaimed land ownership and demonstrated a readiness to defend territory.

SITE SURVEY

The tower on the summit of Panakton has long been a conspicuous landmark (Fig. 3). Due to its prominence, the site was occasionally noticed in passing by travelers of the 18th and early 19th centuries, but it seems never to have been visited by them. Typical are the notes made by William Gell upon his arrival at Pyli (called by him “Kako Sialesi”) on his itinerary from Athens to Thebes in 1805: “The plain or valley of Kako Sialesi is situated upon a steep of Mt. Parnes, at a considerable elevation above the valley of the Asopus. There are several villages near it, such as Kabasabati [i.e., Kavasala], with its castle on a hill.”11 The name of this “castle” seems to have been forgotten; there is presently no reason to believe that it shared the name of the village, Kavasala (now Prasino), that was later established at its foot. The earliest mention of any of the present-day villages in the Dervenochoria, Derveno Salesi, is in an Ottoman register of 1521.12 To date, we have found no description in Ottoman or earlier sources of a village in the region that fits the characteristics of medieval Panakton.13

12. Skourta is not yet mentioned in 1540 and 1570 but does appear in the 1642 poll tax register. For the period between 1570 and 1642, no Ottoman records for Boeotia have yet been identified.
13. Svoronos (1959, p. 55) suggested that the village of Pileana, which is mentioned in the late-11th- or early-12th-century Cadaster of Thebes, should perhaps be identified as modern-day Pyli. This identification cannot be proven with any certainty and results of archaeological survey in the area do not support habitation in this period.
Early travelers paid closer attention to the medieval tower that stood on the rocky crest above the pass at Pyli, directly across the plain (Fig. 4). Writing of his trip in 1805, Edward Dodwell provides the fullest description: “Above the village [Kakasiales] is a ruined tower on a rock, in a strong position, and evidently erected to guard the pass. It is apparently of Venetian construction; and there are not traces of antiquity, except at the foot of the hill, where some foundations of walls, composed of large rough blocks, indicate, perhaps, one of the ancient Attic forts.”14 A more accurate dating of the Pyli tower and the medieval remains at Panakton was not established until these and other medieval sites in the vicinity were studied in the course of intensive archaeological survey conducted between 1985 and 1989.15

Survey on the site of the Pyli tower discovered a single Venetian torresello of Giovanni Dolfin (1356–1361),16 as well as late medieval sherds from glazed bowls and cooking wares, which were identical in fabric and decoration to vessels subsequently excavated at Panakton.17 Survey on the site of Panakton recovered numerous late medieval sherds. These fragments included a glazed bowl decorated with incised concentric circles and the raised bases of late medieval fine ware vessels. A torresello of Tomaso Mocenigo (1414–1423)18 was found in the fields below the site.19 After analyzing pottery recovered from the summit of Panakton, the surveyors concluded: “the homogeneity of the pottery at Panakton suggests that the medieval occupation there can be placed in the later fourteenth and fifteenth century, probably not lasting very long into the period of Turkish rule.”20 Two seasons of excavation confirmed and refined the survey findings: the medieval phases of Panakton lasted for little more than a century, beginning in the early 1300s and ending before the Turkish period.

Unlike the slight trace of ruins of less than a quarter hectare around the Pyli tower, the site extending downslope from the tower at Panakton is

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14. Dodwell 1819, p. 51. See also the notice by Gell 1819, p. 55: “The tower and pass of Kako Sialesi toward Thebes. There are no positive vestiges of remote antiquity on this spot, but it has been fortified by walls, as well as by the tower, yet visible.”
17. Munn and Zimmerman Munn 1989, pp. 118–120, cat. nos. 137–143, pls. XI, XII, XXXIV, XXXV.
much more substantial. An area of approximately a hectare bounded by traces of Classical fortification walls slopes gradually to the south from the summit (Fig. 5). Within this area, on a series of more or less level terraces running east-west, are substantial ruins of domestic and public structures. The evidence of reused Classical masonry and the abundance of prehistoric, Classical, and Hellenistic sherds on the site demonstrate that it has been an attractive place for settlement at several periods in the past. Its commanding view, natural defensibility, and the availability of water from a perennial spring halfway from the summit to the plain on the west side have clearly recommended the site whenever a community of a few hundred individuals required a secure residence in this area. By the evidence of survey, confirmed by excavation, the last time that the site was inhabited was in the late medieval period.
The similarity of the finds between Panakton and Pyli and the comparable construction of their towers suggest that the sites are contemporary and perhaps even related. The towers are intervisible, and each commands a view of the immediate approaches to the Skourta Plain on one side, suggesting their combined utility for warning the inhabitants of the plain of approaching dangers. In this and other respects, these are typical of medieval towers found throughout Attica and Boeotia.21 The Panakton tower is nearly square in plan, measuring 6.64 x 6.69 m with a wall thickness of 1.40 m. Dressed blocks, reused ancient masonry, reinforce the corners of the structure; the walls are composed of local stones set in fairly regular courses. On occasion, brick splints level out the stone courses. The Pyli tower is constructed in a similar fashion. Both towers are now diminished in size due to erosion. Local residents recall that the Panakton tower once had a lower, vaulted chamber; these reports have yet to be verified through excavation of the heavy rubble fall now surrounding the base of the tower. Future investigation of the tower may clarify its original function.

EXCAVATION METHODOLOGY

In the summers of 1991 and 1992 excavations were conducted for the first time at Panakton. The study of the finds from this first program of excavation was completed in the summer of 1999. This report presents a detailed overview of the medieval remains excavated thus far.22 Following a brief introduction to the excavation methodology, we discuss the site's architectural remains, as well as ceramic, metal, and glass finds. Reports on the architectural sculpture and the medieval cemetery follow discussion of the site's central church.23 Medieval coins found on site are catalogued in Appendix 1. Appendix 2 presents information from Ottoman archives on settlements in the plain during the Turkish period.

The principal objective of the 1991 season was to obtain a sample of stratigraphy across the site in order to establish the spatial and depositional distribution of the remains of the various periods revealed by survey. To this end, it was determined that a series of 1 x 2 m test trenches would be placed systematically across the site and excavated to bedrock. The site is naturally aligned very close to the cardinal points of the compass, with the longitudinal axis of several buildings aligned east–west with the terraces and with cross walls running north–south with the slope. In order to minimize the chances of excavating test trenches that paralleled walls but did not cross them, it was decided that test trenches should not follow this alignment. Therefore, a reference grid of 20-m squares (designated by alphanumeric coordinates as indicated in Fig. 5) was established across the site, anchored at the survey pin atop the concrete column on the tower

21. See Lock 1986, where these towers resemble his common type B, p. 105; see also Langdon 1995.
22. For preliminary analysis of these remains, see Gerstel 1996.
23. The prehistoric and Classical phases of the site will be published separately.
at the top of the site, and rotated clockwise 20 degrees from compass north.\textsuperscript{24} Within every 20-m square the same 5-m square was designated for sampling,\textsuperscript{25} and the 1 x 2 m test trench was selected for excavation within this square. Following this method, seventeen test trenches were opened, thirteen of which were excavated to bedrock at depths ranging from 0.10 to 2.60 m below present ground surface.\textsuperscript{26} All tests produced medieval tiles and sherds in their uppermost strata; four revealed nothing but medieval deposition to a depth of as much as 0.75 m to bedrock;\textsuperscript{27} nine encountered remains of walls that stood in the medieval period.\textsuperscript{28} These findings confirm the impression given by surface sherds and rubble piles that the entire area within the circuit of the ruined ancient walls was once filled with the buildings, yards, and intervening paths of a medieval village.

Beginning in 1991 and continuing in 1992, some of the most conspicuous surface remains were cleared of overlying rubble and excavated. A magnetometry survey revealed a strong magnetic anomaly at one point, and this too was excavated (House III in Fig. 5). The two seasons of work uncovered two churches, three complete houses, walls from additional houses, and portions of the settlement’s cemetery.

DOMESTIC ARCHITECTURE

Most of the remains on site can be identified as small houses. Based on surface survey of rubble remains and systematic test trenches, we estimate that at least thirty houses once stood within the circuit defined by the ruins of the ancient fortifications. There is no clear indication that a continuous wall was erected around the medieval settlement, although the walls of houses constructed on the edges of the terrace may have created a barrier.\textsuperscript{29} The Panakton houses provide important, well-dated material for the study of domestic architecture in medieval Greece.\textsuperscript{30} Divided into elongated plans and square plans centered on a courtyard, the houses are constructed of local stones and were originally roofed with ceramic tiles. Floors

\begin{itemize}
\item 24. The datum point on the survey column is marked as elevation 713.852. This point was designated N(orth) 1000/E(ast) 1000 m on our survey grid, and marks the southwest corner of the 20-m square F8, so that, for example, the southwest corner of 20-m square K8 is point N 900/E 1000. Additional datum points were established by pins set in concrete at N 929.279/E 1040.565 (datum 1), and N 908.392/E 1010.717 (datum 2).
\item 25. Five-meter squares are numbered 1–16, west to east beginning from the northwest corner. For even spatial distribution of sampling units, we arbitrarily investigated square 6 in every 20-m square. Two exceptions were dictated by the presence of built features or steep declivity. Within these squares, 1 x 2 m test trenches were placed in the southeast corner. Adjustments were made in cases where the presence of features or bedrock prevented excavation. This testing procedure was discontinued after the first season; these squares yielded a consistent stratigraphic sample.
\item 26. The following 1 x 2 m test trenches (a few enlarged to 2 x 2 m) were excavated: I9–6, I7–6, I9–6, I10–6, I11–10, J9–6, J10–6, J11–6, K8–6, K9–6, K10–6, K11–6, L9–6, L10–6, L11–6, M10–6, M11–2. Deposition was generally deeper downslope. Excavation ceased in K8–6, L9–6, M10–6, and M11–2 before bedrock was reached.
\item 27. The following trenches had only medieval deposition: H9–6, I7–6, I9–6, J9–6.
\item 28. The following test trenches contained medieval walls: I9–6, I10–6, I11–10, J10–6, K8–6, K9–6, K10–6, K11–6, L10–6, M11–2.
\item 29. The Classical circuit wall was originally made up of mud bricks above a stone socle, and therefore existed as no more than a foundation in the late medieval period.
\item 30. See Coleman 1986, pp. 141–149, for the excavation of a 12th- or 13th-century house with similar construction features.
\end{itemize}
were made of packed earth and clay. Due to the density of rubble fill from collapsed house walls, doorways are occasionally difficult to identify. Among those excavated so far, there is no evidence that any house had more than a single story.

Both medieval and early modern houses in this region are generally modest in size and bereft of amenities. John Hobhouse, who spent Christmas eve of 1809 in Skourta, described his experience of a house as "the worst hovel of which we had ever been inmates. The cows and pigs occupied the lower part of the chamber, where there were racks and mangers and other appurtenances of a stable, and we were put in possession of the upper quarter. We were almost suffocated with the smoke, a common calamity in Greek cottages, in which the fire is generally made in the middle of the room, and the roof, having no aperture, was covered with large flakes of soot, that sometimes showered upon us during the night."32 Hobhouse describes a small, single-storied long house with a single room divided into two sections by a change of floor level.

John Sibthorp offered a first-hand description of the same house type based on an overnight stay in the nearby village of Koundoura on November 16, 1794: "The houses, covered with pan tiles, consist of a single room, with a door-way in the middle; the area is divided into two parts, the one serves for the stable, the other, which rises a foot higher, is tenanted by the peasant and his family; in the center is a fire-place, the smoke passing through apertures made in the roof."33 Many of the traditional houses in the Dervenochoria are built according to this simple plan, which was popular until the beginning of the 20th century in Greece.34 In the single-story, elongated houses in the region, the living quarters of the family and the stables for animals formed part of a continuous architectural shell; individual rooms were divided by a narrow cross wall and accessed by separate doorways.34 Chimneys are located at the center of the short walls of the houses. Familiarity with these traditional houses and the living arrangements of the family clarifies certain aspects of the houses of medieval Panakton. For example, both the late medieval and early modern houses have two connected but discrete spaces, one for human habitation, and the other for animals or storage. Also, terracotta smoke holes were found in the course of excavation immediately outside the houses in the midst of wall and roof debris (see below, Figs. 11, 25). Their discovery, seemingly disassociated from hearths, may signal that they were once located at the edges of the roofs, at the top of a wall, as are chimneys on the early modern houses.

House I (Square J10)

House I, consisting of two rooms on a north–south axis, lies parallel to the west wall of the church (Figs. 6, 7). The entire structure measures 13.8 m from north to south and has a width ranging from 4.8 to 5.0 m. The south room was the first to be built and a slightly smaller room was added to the north. An additional wall, which descends from the southeast corner of the house and runs parallel to the west wall of the church, may have defined the house’s courtyard and may have also served to isolate domestic

32. J. Sibthorp, in Walpole 1817, p. 64.
34. Stedman 1996.
activities from those of the adjacent ecclesiastical structure and its surrounding graveyard. A surface of packed earth with gravel to the west of the house may have formed a path that ran on a north–south line, connecting the lower levels of the settlement to the tower (Fig. 5).

The lower, southern room, with an internal dimension of 6.0 x 3.3 m, was partially excavated in 1991; a test trench (J10-6) dug on the east side of the room disturbed the line of the wall. The walls of the south room, 0.75 m thick, are constructed of rubble masonry with brick splints used to even out courses of local stone. The entrance to the room lies on the south side and has smooth jambs. The north wall is bowed slightly inward, perhaps due to pressure exerted by the abutting east wall of the north room. The 1991 test trench showed a depositional pattern that is common to all of the medieval buildings excavated to date: a thick layer of large building stones (approximately 0.30 m) covers a layer of roof tiles (approximately 0.20 m). Below the tile layer is a shallow level of fill over packed earth, which represents the medieval floor. The floor level rests directly on a layer of Hellenistic roof tiles. A single medieval coin, a denier tournois, was recovered in the tile layer of this trench and suggests a 14th-century date for the house’s occupation (see Appendix 1). Unfortunately, the coin is not wholly legible and cannot therefore provide a more refined date. Given the relatively small size of the test trench (2 x 2 m), a surprising number of small finds were recovered below the tile layer, that is, at the level of the

Figure 6. House 1: plan

35. In 1992, debris covering the roof tiles, including a large number of stones from the fallen walls of the house, was removed in preparation for excavation within this room.

36. Inv. no. 1991-16.
floor. Complete nails and nail fragments were found in the tile level and were also associated with the floor surface of the south room.37 The remaining items can be associated with domestic and agricultural activities: a knife with a bone handle, a section of a belt buckle, a plowshare, and an equine shoe (23–26).

The upper, north room, measuring 5.4 x 3.5 m on the interior, was completely excavated in 1992. The walls of this room are not bonded with those of the south room. The stratigraphy matched the pattern established in other domestic deposits on site. Large stones that once formed the walls of the house lay over a thick stratum of roof tiles, excavated as stratigraphic units (SU) 111, 118, and 129. The highest concentration of tiles was collected in the northeast corner of the room, demonstrating that the roof collapsed first in this section and that tiles subsequently slid into the building’s interior. The entrance to the room is located at the west end of the south wall where a Classical, inscribed stone formed a flat threshold. The block was placed with the inscription side up but turned sideways; both edges of the inscription were worn by tread marks.

The defining feature of the north room is the striated bedrock, which runs diagonally through the upper half of the room, creating an uneven and protruding surface. In the northeast corner, the bedrock forms the foundation for the wall; the remaining walls appear to be built directly on the soil. In the lower half of the room, to the south of the bedrock, the floor is formed of earth mixed with small pebbles.

A number of ceramic vessels (7–19), primarily cooking wares and large, coarse pots intended for storage, were recovered from the level below the roof tiles, i.e., resting on the floor surface. These finds, particularly in the southeast corner of the room, occur in unit 133. Units 126 and 131 define an indentation within the bedrock along the room’s east wall. This natural indentation may have served as a storage niche. Six iron nails were discovered below the tile layer in this corner of the room, suggesting, together

with the large number of pots, the construction of a storage shelf or the attachment of metal pegs for suspension.\textsuperscript{38} Most of the pottery from sealed layers was found in the southern half of the room, i.e., to the south of the protruding bedrock. Fragments of cooking pots (10, 13) were also recovered in unit 129, the tightly packed soil within the bedrock in the room's north half. This unit contained a high concentration of barley grains, which may indicate that the upper part of the room, with its protruding floor surface, was used as a storage bin.\textsuperscript{39} The recovery of numerous fragments of cooking pots, mixing bowls, and storage vessels suggests that this room was used to house staples for domestic use.

A single coin helps to situate the pottery found within this room chronologically: a Venetian soldino nuovo minted under the doge Francesco Dandolo (1329–1339) was found immediately adjacent to the exterior face of the lowest course of the east wall, within a level of earth that had accumulated against the foundation (see Appendix 1).\textsuperscript{40} Although the coin does not provide a secure date for the construction of the room, the period of the coin's circulation is coeval with the use of the room and the pottery found within it.

**Pottery**

1 1999-4: Bowl  
From tile layer of north room (SU 120). Est. Diam. 0.19 m. Rim fragment of thin-walled bowl. Smooth, pink fabric (7.5YR 7/4). Yellow glaze over white slip on interior; white slip around rim on exterior. Incised grooves below lip and rim on interior; incised wavy line on upper surface of rim.
For a possible base fragment from the same vessel, see 3.

2 1999-28: Bowl  
From floor deposit in the southeast corner of north room (SU 133). P.H. 0.045, est. Diam. 0.145 m. Five joining fragments of vertical, tapered rim and upper body. Hard-fired fabric with red core (2.5YR 6/8). Monochrome brown glaze (7.5YR 5/8) coating interior and exterior surfaces. Glaze thicker at lip.
Cf. Williams and Zervos 1994, p. 34, no. 48, pl. 8. For a base of a similar vessel, see 43.

3 1999-217: Bowl  
From wall debris immediately below surface in north room (SU 103). P.H. 0.05, Diam. of foot 0.055 m. High ring foot and lower body. Hard-fired, pink (5YR 7/3) fabric with small grit inclusions. Traces of two tripod marks on interior. Yellow glaze over white slip on interior; small trace of glaze on exterior. Interior incised with spiral composed of five circling lines at joint of body and base.
Bases from similar vessels also recovered in SU 113, 117, and 119 are catalogued as 1999-11, 1999-12, and 1999-15. For a possible rim profile, see 1.

4 1999-420: Juglet  
From floor deposit below roof tiles in north room; found in indentation in bedrock (SU 126). P.H. 0.097, Diam. of base 0.057 m. Two joining fragments of base and lower body with handle attachment. Moderately coarse, reddish-yellow (SYR 7/6) fabric with gray and white grit inclusions. Upper body painted with white slip with traces of green leaf(?), outlined in dark brown glaze; lower body and interior covered in clear glaze.


\textsuperscript{39} Barley grains were identified through seed flotation in units 111, 129, and 131. These units immediately overlie bedrock, where prehistoric deposits often occur on the site. Fragments of glass and sherd s from medieval coarse wares were also found in these units, as were Final Neolithic sherds. Ottoman tax registers record barley as a major crop grown in the plain (see Appendix 2).

\textsuperscript{40} Inv. no. 1992-197.
Handle from similar juglet catalogued as 1999-36. Cf. Armstrong 1989, p. 20, no. 49, for an example of a slightly larger jug with similar decoration dated to the 13th century.

5  1992-301: Mixing bowl

From tile layer in north room (SU 111). P.H. 0.128, Diam. at base 0.115, Diam. at rim 0.359 m. Thirteen fragments of base, wall, and horizontal rim forming complete profile. Coarse, reddish-yellow (5YR 6/6) fabric with black and white grits. Attachment for wide, vertical handle at rim and body (0.07 m below rim). Deep green, mottled glaze on interior and on portions of upper surface of rim.

For a similar bowl, though smaller and with a different rim, see 27.

6  1999-19: Bowl

From wall debris immediately below surface in north room (SU 103). P.H. 0.052, est. Diam. 0.24 m. Single fragment of vertical rim with incurving lip and upper body. Moderately coarse, reddish-yellow (5YR 6/6) fabric with sandy inclusions. Ridge on exterior at join of rim and body.

Similar fragment found in survey of Pyli tower: Munn and Zimmerman Munn 1989, no. 142. Cf. Sanders 1993, no. 53, for an early-13th-century example from Sparta.

7  1999-53: Mixing bowl(?)

From floor deposit below roof tiles in north room, southeast corner (SU 133). P.H. 0.035, Diam. at base 0.11 m. Single fragment from thick ring base. Gritty, reddish-yellow (7.5YR 6/6) fabric with fine white inclusions.
8 1992-421: Cooking pot

From floor deposit below tiles in north room; indentation in bedrock (SU 111, 126, 131). P.H. 0.12, Diam. 0.14, W. of handle 0.029 m. Fourteen joining fragments of rim, upper body, handle. Gritty, reddish-yellow (7.5YR 7/6) fabric with black and white inclusions. Thickened, upturned rim with inner resting ledge. Wide handle with groove on upper surface attached 0.021 m below rim. Exterior surface burned gray to black at base.

9 1999-51: Cooking pot

From tile layer in north room (SU 111). Est. Diam. 0.20 m. Single fragment of slightly everted rim with inner resting ledge. Gritty, reddish-yellow (7.5YR 7/6) fabric with dark orange, black, and white inclusions. Wide handle (0.037 m) with groove on upper surface.

10 1999-58: Cooking pot

From tile layer in north part of north room (SU 129). P.H. 0.032, Diam. 0.19 m. Three joining fragments broken below rim. Gritty, reddish-yellow (5YR 7/6) fabric with small pitting and black and white inclusions.

Cf. 30. Similar fragment found in survey of Pyli tower: Munn and Zimmerman Munn 1989, no. 141.

11 1999-29: Cooking pot

From tile layer in north room and deposit under tiles in southeast corner of north room (SU 111, 133). P.H. 0.039, Diam. 0.175 m. Five fragments of elongated vertical rim with slightly inturned lip. Gritty fabric with black and white inclusions. Broken at join of rim and shoulder. Burned over exterior surface.

12 1999-31: Cooking pot

From tile layer in north room (SU 111). P.H. 0.078, Diam. 0.13 m. Single fragment of vertical rim and upper body. Gritty, reddish-yellow (5YR 6/6) fabric with black and white sandy inclusions. Horizontal ridges on exterior surface below rim.

See 31 for the same rim profile on a slightly larger vessel.

13 1999-30: Cooking pot

From tile layer in north part of north room (SU 111, 129) and deposit under tile layer in indentation in bedrock (SU 126). P.H. 0.031, Diam. 0.137 m. Six fragments of rim broken above join to body. Gritty, reddish-yellow (5YR 7/6) fabric with fine white inclusions. Groove under lip on interior.

14 1999-35: Closed vessel

From tile layer in north room (SU 111) and deposit under tile layer in indentation in bedrock (SU 126). P.H. 0.084, Diam. of base 0.089 m. Five joining fragments of flat base and lower body. Gritty, reddish-yellow (5YR 6/6) fabric with micaceous inclusions.

Fragment of similar base from SU 111 inventoried as 1999-38.

15 1999-33: Cooking pot

From tile layer in north room (SU 111, 118) and deposit below tile layer in southeast corner of room (SU 133). P.H. 0.019, Diam. of base 0.10 m. Seven
joining and one additional fragment of flat base. Coarse pink (7.5YR 7/4) fabric with black and white inclusions.


**16 1999-57: Pitcher**

From tile layer in north room (SU 111). P.H. 0.055 m. Fragment of trefoil rim and upper neck. Coarse, reddish-yellow (5YR 7/6) fabric with gritty inclusions. Incised, decorative band on upper neck 0.018 m below rim.

**17 1999-49: Storage pot**

From tile layer in north room (SU 111), deposit below tiles in indentation in bedrock (SU 131) and southeast corner (SU 133). P.H. 0.126, Diam. at rim 0.087, W. of handle 0.038 m. Four fragments of vertical rim and complete handle. Coarse, reddish-yellow (7.5YR 7/6) fabric with fine white inclusions.

**18 1999-80: Amphora**

From tile layer in north room (SU 111); deposit below tiles in indentation in bedrock (SU 126). P.H. 0.17, Diam. of rim 0.08, W. of handle 0.07 m. Nineteen joining fragments of rim, shoulder, and two handles. Thick strap handle rises
vertically from shoulder and attaches to upper body. Coarse, reddish-yellow (5YR 6/6) fabric with white and deep orange grits. Traces of burning on exterior rim and shoulder. Incised wavy decoration on shoulder; horizontal grooves on exterior of body. Rib on neck.

19 1992-306: Pithos

From tile layer in north room (SU 111) and deposit below tiles in indentation in bedrock (SU 126). H. 0.86, Diam. at base 0.475, Diam. at rim 0.475, interior Diam. of resting ledge 0.37 m. Many fragments yielding nearly complete storage jar. Flat base. Inward and outward thickened rim, interior resting ledge for lid. Broad strap handle attached at rim. Coarse, reddish-yellow (5YR 6/6) fabric with large stone inclusions and deep pitting. Smoothed surface on exterior, rough surface on interior with finger smoothing over joins between built sections. Two wavy lines incised between three grooves on the shoulder.

A slightly smaller pithos of similar type and fabric was excavated by Charris Koilakou at Akraiphnion in 1998. Koilakou dates the pithos to the end of the 12th or beginning of the 13th century.41

Tiles and Smoke Holes

20 1999-17: Smoke hole

From wall debris in north room (SU 103), P.L. 0.23, W. from rim to smoke hole 0.155, H. of flange 0.11 m. Single fragment preserving complete profile. Coarse, reddish-yellow fabric (7.5YR 6/6) with stone inclusions and pitting on surfaces. Finger impressions around exterior in continuous rows.

For other examples, see 38, 39.

21 1999-6: Pan tile

From tile layer in north room (SU 111), L. 0.58, W. 0.35, Th. 0.025 m. Five joining fragments of complete pan tile. Coarse, reddish-yellow (5YR 6/6) fabric with red and white small stone inclusions. Smoothed upper surface decorated with impressed 5 curve in center; two parallel grooves on short side for adhesion.

Cf. AVP XV.2, pp. 30–33, fig. 10, pl. 14, for Late Byzantine tiles of comparable size, profile, and decoration.

22 1999-7: Cover tile

From tile layer in north room (SU 111), L. 0.54, W. 0.215, Th. 0.025 m. Six joining fragments of complete cover tile. Coarse, reddish-yellow (5YR 7/6) fabric with small stone inclusions. Smoothed upper surface decorated with impressed wavy groove at center and two parallel grooves at short end.

Cf. AVP XV.2, pp. 30–33, fig. 10, pl. 14. Additional complete cover tiles from this house, of similar size and decoration, catalogued as 1999-8, 1999-9.

Small Finds

23 1991-78: Iron knife with bone handle

From floor of south room (SU 11), L. 0.215, Max. W. of blade 0.024 m. Iron blade composed of two fragments. Bone handle in two parts attached to blade by four rivets of which two are preserved. Upper and lower bone handle cracked.

Similar bone-handled knives, dated to the 13th and 14th century, have been recovered in excavations of the Carevgrad Palace in Bulgaria; Georgieva and

Figure 11. House I: pithos (19), smoke hole (20), and roof tiles (21, 22). Scale 1:6
Nikolova 1974, pp. 216–219, fig. 33. See also a bone-handled knife from Thebes published in Papanikola-Bakirtzi 2002, p. 109. This knife, dated to the 12th century, measures 0.22 m in length. Two additional nonjoining blade fragments from the north room of the house, SU 135, are inventoried as 1992-389.

24 1991-42: Iron plowshare
   From floor of south room (SU 8). L. 0.128, Th. 0.015 m. Weight 0.365 kg. Broken at the stem. Heavily corroded exterior. Type is simple scratch-plow or ard.
   See Forbes 1976.

25 1991-51: Equine shoe
   From floor of south room (SU 8). L. 0.084, W. 0.031, Th. 0.005 m. Weight 0.038 kg. Half of iron shoe and four additional fragments. Two squared attachment holes on preserved half.

   Similar horseshoes, dated to the 13th and 14th century, have been recovered in excavations of the Carevgrad Palace in Bulgaria; Georgieva and Nikolova 1974, pp. 311–313, 378–379, fig. 122. For similar horseshoes from a comparable 12th-century settlement in Thrace, see Fol et al. 1989, fig. 143.

26 1991-120: Belt buckle
   From floor of south room (SU 11). L. 0.04, W. 0.041, Th. 0.004 m. Iron bent into the circular shape of a buckle with one flattened side. Tongue missing, but it may be catalogued as 1991-680, which has the same dimensions (L. 0.041 m) as the width of the buckle.
House II (Square K9)

House II comprises two rooms facing each other across a courtyard and, thus, presents a different plan from that of the elongated houses on the site (Figs. 15, 16). The back wall of the west room uses a wall of the adjacent Classical tower as a foundation. In 1991, surface clearing revealed the outlines of the rooms of this house. A 2 x 2 m sondage was dug within the west room, which has interior dimensions of 5.7 x 3.3 m. A layer of boulders covered a level of medieval tiles. Below the tiles was a medieval floor level, which covered a layer of Hellenistic roof tiles mixed with Classical and Hellenistic pottery.

A second test trench dug in 1991 (K9-6) encountered the exterior face of the northeast corner of the east room. This room, measuring 3.8 x 2.8 m on the interior, was excavated in 1992. These two rooms were connected by a cross wall that defined a courtyard between them and divided
them from a second house, whose outlines appeared in surface cleaning immediately to the north. The east room was excavated to the level of the packed dirt floor. Four nails were found at this level.\(^4^2\) Originally the room was roofed with terracotta tiles; these were found embedded in a thick layer of clay.\(^4^3\) In the same tile level, a fragment of carbonized wood was uncovered together with iron nails, perhaps part of the wooden framework that supported the roof. A thicker layer of tiles was deposited on the south side of the room, with a heavy concentration in the southwest corner. The tile distribution demonstrates that the roof first collapsed in the southwest corner, allowing the tiles to slide into the building’s interior. A single denier tournois dated to the reign of Philip of Tarentum (1307–1313)\(^4^4\) was found below the surface in a level of fallen wall material (see Appendix 1).

**Figure 17. Houses II and III: cooking and coarse wares (27, 28, 30). Scale 1:3**


43. In size and fabric, the tiles from this room are identical to those found in House IV.

44. Inv. no. 1992-84.

**Pottery**

27 1999-153: Mixing bowl

From tile layer of east room (SU 201). H. 0.095, Diam. at base 0.09, Diam. at rim 0.265 m. Four joining fragments forming complete profile with slightly raised ring base and rolled, slightly outturned rim. Coarse, reddish-yellow (5YR 6/6) fabric with black and white inclusions. Deep green mottled glaze coating interior and upper surface of rim. Ridge under lip on exterior.

For a similar bowl, though larger and with a different rim profile, see 5.

28 1999-136: Mortar(?)

From tile layer of east room (SU 201). H. 0.142, Diam. at base 0.18, Diam. at rim 0.21 m. Two joining fragments forming complete profile of small basin or high-walled mortar. Coarse, gray (10YR 8/2) fabric with black and white stone inclusions; pitting on surface. Smoothed interior and upper surface of rim.

**Small Finds**

29 1999-112: Knife blade

From floor level of east room (SU 214). P.L. 0.045, P.W. 0.016 m. Single fragment of iron knife blade. Heavily corroded.
House III (Squares I11, J11)

Remains of House III were discovered in 1991 after a magnetometry survey had detected the presence of a magnetic anomaly directly east of the main church (Figs. 18, 19).45 Excavation uncovered the top of a subterranean storage pithos (the southern of the two pithoi in Fig. 18). The pithos was constructed of rubble and cement in the form of an oval flattened on the bottom, 1.15 m across at the mouth, 1.50 m at maximum diameter, reaching a depth of 1.50 m. The pithos appears to have been intentionally filled with earth and rubble, and covered with flat stone slabs. No visible traces of burning were discovered, and the cause of the magnetic anomaly remains unknown.46 The corner of a room to the south was exposed in surface cleaning. Two of the walls of this room, at the edge of the terrace, appear to have been destroyed by erosion.

A room to the north, with interior dimensions measuring 2.2 × 4.0 m, contains a second subterranean storage pithos. The foundations of the walls of this room, like the wall fragments of the south room, lay close to the modern ground surface, so that the original floor of the room and the rim of the pithos had been destroyed. Construction of this room encroached on the edge of a cemetery extending to this point, approximately 6 m east of the apse of the main church. The foot of grave 1992-4 (Fig. 77, below) lay below the foundations of the room's southwest corner. Because the cemetery lies close to the west side of these storage structures, it seems probable that associated house foundations remain to be discovered to the east.

45. The magnetism of this feature indicated firing at a temperature approximating that of a kiln. S. Papamarinopoulos made this suggestion based on comparable anomalies encountered on other sites.

46. S. Valamoti has pointed out that residue in storage pits is sometimes fired to eliminate molds. It is possible that this cleansing process explains the magnetism associated with this pithos, but the fact that it is a unique magnetic feature on a site with several such built pithoi remains a curiosity. Remains of built pithoi have been found in squares K8, K10, and L11.
Figure 19. House III: view from south

**Pottery**

30 1999-184: Cooking pot  
Fig. 17

Found at floor surface beside the southern pithos (SU 57). P.H. 0.064, Diam. 0.21 m. Two joining fragments of elongated vertical rim and upper shoulder. Rounded, slightly inturned lip. Gritty, reddish-yellow (5YR 7/6) fabric with black and white inclusions. Ridges on shoulder.

Cf. 10. Similar in profile and fabric to a sherd found in survey of Pyli tower: Munn and Zimmerman Munn 1989, no. 141.

**House IV (Squares L10, L11)**

House IV, an elongated structure, is situated at the edge of the terrace adjacent to the Classical fortification gate (Figs. 20, 21). The house, built on an east–west axis, measures 12.2 m in length and varies in width from 4.2 to 4.75 m. House IV is divided into three separate rooms connected by doorways; the location of its main entrance is not clear. The interior dimensions of the east room are 1.9 × 2.8 m. The center room measures 2.6 × 2.5, and the west room, the largest, measures 4.85 × 3.1 m. Excavation in the east room ended just below floor level. The eastern half of the central room was excavated to floor level, as was the entire west room. In order to understand better the composition of the floor, a shallow sondage was dug in the southeast corner of the west room. Wall construction within the building varies somewhat, but all the walls have two faces, reuse Classical blocks, and employ medieval tiles to level stone courses. Traces of an earlier foundation are visible in the east room, where a low wall was uncovered at floor level. Deposition within the house consisted of wall tumble above a layer of roof tiles, which covered a layer of compact green–gray clay, generally 0.04–0.08 m thick. This clay level, the bedding on which the tiles originally lay, covered a compressed clay floor, which, in turn, covered Hellenistic fill.47

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47. It is possible that the clay level belongs to more than one medieval floor and that the house may have had multiple phases of construction or remodeling.
As with other medieval structures on site, this house dates to the 14th century. A single coin was found within the tile layer of the house, an obole of William or Guy II de la Roche (1280–1308), which was pierced for suspension (see Appendix 1). The ceramic finds include fragments of glazed bowls with incised, concentric circles of the type common on the site. Fragments of coarse ware storage vessels (34, 36) were found in the tile debris above the floor in the center room; other coarse ware vessels (33, 37) were associated with a depression in the center room. A cooking pot (32) was found resting on the floor level in the southwest corner of the east room, where it had been covered by clay from the fallen roof. The ceramic vessels recovered in this room are similar in fabric and type to the assemblage from House I. The discovery of several smoke holes suggests that more than one room served as living quarters.

49. Fragments from two glazed bowls with incised decoration were inventoried as 1999-98 and 1999-99 but do not appear in this catalogue. For the type, cf. 3.
Pottery

31 1999-102: Cooking pot

From rubble tumble in west half of east room (L11, SU 107). P.H. 0.057, Diam. 0.17 m. Single fragment of elongated vertical rim and handle. Gritty, reddish-yellow (5YR 7/6) fabric with black and white inclusions. Two grooves on upper surface of handle. Ridges on shoulder. Fragment from same vessel inventoried as 1999-103.

For a similar fragment from survey of Pyli tower: Munn and Zimmerman Munn 1989, no. 141. For a Corinthian pot of similar shape, see Sanders 1987, p. 182, no. 21, fig. 6.21.

32 1992-352: Cooking pot

Found on the floor level of the east room (L11, SU 106). Ninety-six fragments of rim, body, and two strap handles. H. 0.22, Diam. of rim 0.15 m. Tall, slightly flaring rim. Gritty, reddish-yellow (5YR 7/5) fabric with many reddish-brown angular grits and white and gray inclusions.

33 1999-106: Storage vessel

From depression in floor level at center of center room (L11, SU 111). P.H. 0.123, Diam. of base 0.165 m. Five joining fragments of base and lower body. Coarse, reddish-yellow (5YR 6/6) fabric with black and white grits. Wavy combed band bordered by incised grooves on shoulder.

34 1999-107: Storage vessel

From tile and clay layer below roof in center room (L11, SU 109). P.H. 0.114, Diam. of base 0.10 m. Twenty-one joining fragments of base and lower walls. Coarse, reddish-yellow (5YR 7/6) fabric with black and white inclusions. Deep green glaze splattered on exterior above base.

35 1992-403: Storage jar lid

From lower fill in east half of west room (L10, SU 105). Est. Diam. 0.14, Th. 0.018 m. A quarter of the lid. Coarse, reddish-yellow (5YR 7/6) fabric burned to pinkish gray (7.5YR 6/2) on upper and lower surface. Smoothening on upper surface and around edges. Raised radial ribs and roughly impressed points on upper surface.

For similar lids found in site survey in the Valley of the Muses and dated to the 14th–16th centuries, see Vroom 1997, p. 208, fig. 5; 1998, pp. 538–539.

36 1999-100: Pithos lid

From tile and clay layer below roof in center room (L11, SU 109). Diam. 0.44, Th. 0.011, W. of handle 0.042 m. Ten joining fragments of lid with broad strap handle. Coarse, reddish-yellow (5YR 6/6) fabric with many stone inclusions.

For the pithos type, see 19.

37 1992-423: Pithos lid

From depression in floor level at center of center room (L11, SU 111). Diam. 0.40, Th. 0.015 m. Seven joining fragments of pithos lid with knob handle. Coarse, reddish-yellow (7.5YR 7/6) fabric with black and white stone inclusions. Smoothened on upper surface and beveled edge.

For the pithos type, see 19. Fragment of a similar lid catalogued as 1999-88.
Figure 22. House IV: cooking wares (31, 32), coarse wares (33, 34), and tile (40). Scales 1:3 (31–34) and 1:6 (40)
Figure 23. House IV: storage jar lid (35)

Figure 24. House IV: pithos lids (36, 37)

Tiles and Smoke Holes

38 1999-73: Smoke hole

Fig. 25, left

From wall tumble in east half of west room (L10, SU 101). P.L. 0.55, P.W. 0.15, P.H. of flange 0.074, P.L. (smoke hole) 0.34 m. Five joining fragments constituting roughly a third of tile. Coarse, reddish-yellow (5YR 7/8) fabric with many stone inclusions. Traces of burning on lower surface and on interior of opening. Punched circles between grooves around perimeter of tile.

39 1992-206: Smoke hole

Fig. 25, right

From wall and roof tumble from the south exterior of west room (L10, SU 102). L. (tile) 0.64, W. (tile) 0.38, L. (smoke hole) 0.34, W. (smoke hole) 0.23, H. of flange 0.085 m. Six joining fragments giving full dimensions of tile. Coarse, reddish-yellow (5YR 6/6) fabric with large white inclusions. Upper surface smoothed. Punched circles forming horseshoes at center of each side; incised palm fronds or pine trees in corners.

Additional fragments of another smoke hole inventoried as 1999-74a-c.

40 1992-208: Pan tile

Fig. 22

From lower tile level in east half of east room (L11, SU 105). L. 0.60, W. 0.38, Th. 0.019–0.032 m. Seven joining fragments giving full dimensions of tile.
Reddish-yellow (5YR 6/6) coarse fabric with red, white, and orange inclusions. Evidence of smoothing marks on upper surface. Decorated with parallel lines at edge, two straight, vertical lines at center flanked by thick, double wavy lines.


Small Finds

41 1999-371, 1992-65: Knife blades

From east exterior of east room at floor level of house (SU 201). L. 0.094, 0.051 m. Fragments from two iron knife blades; both broken at tips.

The Central Church

Local tradition ascribes names to four of the ruined churches on the Panakton hill; it is impossible to know, however, if these names reflect their initial dedication. Two of the churches are located outside the walls of the fortress. A small abandoned chapel immediately below the main Classical gate is said to be dedicated to St. Nicholas. A ruined chapel on the slopes descending to Prasino carries the name of St. Kyriake; a small shrine is maintained to this date within the rubble. Thus far, two churches have been cleared within the fortress. The small chapel in squares G8–G9 near the summit of the settlement is said to be dedicated to the Annunciation. No finds were discovered during the clearing of the building, which rests on bedrock.

At the center of the settlement, in squares J10–11, is the church known as “Sotera” (Figs. 26–28).50 Measuring 15 × 5.5 m overall, the church is sited on a narrow plateau and is flanked by House III to the east and House I to the west. This is the largest church on site and it played a central role in the life of the villagers. In addition to housing religious ceremonies, it served as the burial church for Panakton. Excavation revealed...
Figure 26. Church: plan

Figure 27. Church: view from west with narthex and tombs following excavation

Figure 28. Church: view from east
graves on the north, east, and south of the church, in addition to two built tombs in the narthex (Fig. 27). Illegal digging within the church proper between 1993 and 1998 revealed traces of human bones in the center of the nave; we can assume, therefore, that burials were also located under the floor of the church.

The nave of the church is constructed from reused stones, including seven stele bases and an inscribed monument base of the late 4th century B.C.51 These stones were built into the wall fabric at various levels without regard for their proper orientation. The double-faced walls, preserved to a height of 1 m, are comprised of dressed stones evened out by brick splints. These are supplemented by rough boulders and smaller stones culled from the site. A dull white mortar with broken ceramic and stone inclusions is found throughout the masonry. Large boulders set vertically serve as orthostates and doorjams, a construction technique that is common in medieval Greece. Soon after the church's construction a narthex, measuring 4.7 × 4.0 m, was added to the west end of the building; its north and south walls are not bonded to the original structure. The outer face of the walls alternates large cut blocks with smaller stones. The masonry of the interior face of the narthex consists of smaller stones set in even courses. The nave of the church is accessed by two entranceways. Upright stones, including a stele base, flank the south doorway. The west entrance, which leads from the narthex to the nave, is bordered by dressed stones set in even courses on the south and an upright cut stone on the north. The west door to the narthex is not on the same axis as the original entrance to the church. A bench made up of large cut blocks runs along the exterior south wall of the narthex; the stones are not bonded to the church exterior.

The position of the apse, which is off axis but aligned with the west door of the nave, presents a curious element (Fig. 28). The apse's displacement to the north suggests that it was rebuilt or formed part of a rebuilding campaign at some point, perhaps the result of earthquake damage or inherent structural flaws (there is currently an uneven crack through the exterior face). The north wall of the church is 0.40 m narrower than the south and west walls; in all likelihood, the wall was rebuilt sometime after its initial construction. Another anomaly within the masonry suggests a disturbance to the original north wall: a large boulder that once stood upright at the west end of the wall fell over into the nave and rests on top of the floor tiles (Fig. 30, right side). The stone courses above this boulder are largely intact but the wall immediately to its east narrows considerably. The north wall of the narthex is aligned with the north wall of the nave, suggesting that any interventions in the wall construction took place prior to or contemporary with the construction of the church's western chamber. Efforts to trace an earlier wall to the north of the church in a location that would account for the off-axis position of the apse and west door were interrupted by the discovery of a grave, 1992-3, immediately outside the north wall, and traces of other skeletal remains (Fig. 74, below).

Three factors suggest that the nave was originally vaulted: the thickness of the walls (1 m on the south and west); the large number of stones that were found, together with fragments of roof tiles, in destruction debris; and the survival of contemporary vaulted churches in the area with

similar construction features. The vault of the Panakton church was originally covered with tiles set into a mortar bed. Numerous tile fragments were found in the upper levels of the excavation and one fragment, still set into its bedding, rested directly on the floor level of the church.

The church is dated by coins found in good stratigraphic levels (see Appendix 1). Five coins were found in the narthex. Four coins were recovered from units below the layer of roof and tile debris, that is, resting on the floor surface. Of these, three are coins minted for circulation in Venice’s colonies and one is a denier tournois possibly minted in Thebes.53 The Venetian coins include a soldino nuovo of Andrea Dandolo (1343–1354),54 a tornesello of Andrea Contarini (1368–1382),55 and a tornesello of Michele Steno (1400–1413).56 An additional coin, a tornesello of Antonio Venier (1382–1400),57 was found below the articulated skeleton in the north grave of the narthex. Torneselli of Andrea Contarini58 and Michele Steno59 were also found in levels of building debris excavated on the west and north sides of the church, respectively. Furthermore, a Venetian tornesello of Antonio Venier60 was discovered behind the altar at approximately the same elevation as the floor tiles at the west end of the nave. The numismatic finds suggest that the church was constructed in the second half of the 14th century. The narthex was added shortly after. This date accords well with the ceramic finds, especially from the narthex, and the surviving fragments of monumental painting discovered in situ and in the fill. The church continued to be in use in the first decades of the 15th century. Later use of the building is not attested in the archaeological record.

The church preserves a number of its original furnishings and decorative elements. The original altar base, an orthostate, stands at the center of the curved apse (Fig. 26). The upper surface measures 0.50 × 0.70 m. The prothesis (offering) table base, 0.30 × 0.40 m, is located on the north side of the church, 0.84 m from the east wall. A double light window originally pierced the apse’s east wall. The fragmentary sill and mullion for the window (Fig. 29),61 formed from shelly limestone, were discovered

Figure 29. Church: mullion and sill fragments from apse window

52. Vaulted churches that may be dated to the late medieval period are found at Skoura as well as Daphni (formerly Darimari), across the pass in the Asopus valley. See Gerstel 1996, pls. 30, 31.
53. Inv. no. 1992-172.
54. Inv. no. 1992-200.
55. Inv. no. 1992-108.
56. Inv. no. 1992-199.
57. Inv. no. 1992-384.
58. Inv. no. 1992-55.
60. Inv. no. 1991-439.
61. Inv. no. 1991-604. Both pieces are fragments. The sill measures 0.39 × 0.19 m. The mullion, which is hexagonal in shape with an articulated, square base, is 0.24 m high.
together with fragments of the altar table immediately above the floor level of the apse, signaling that the east wall collapsed into the church and fractured the marble table top.

The floor of the church was originally covered in ceramic pavement tiles (Fig. 30). These had a uniform thickness of 0.04 m and were decorated with four lightly impressed patterns: triple zigzag, crescent, parallel curves, and an S shape. The most complete examples were located at the west end of the church and along the north and south walls; the tiles at the center of the nave were undoubtedly crushed when the vault fell. A line of tiles crosses the nave approximately 2 m from the east wall and may indicate the location of a templon screen (Fig. 28). The even spacing of the tiles demonstrates that the floor was laid in rows from east to west. Pieces of cut tile were used to fill the 0.15-m gap between the end of the pavement and the west wall. The earth floor of the narthex was coated in whitish-blue plaster.

A large number of ceramic vessels were found in both the nave and narthex. The catalogue presents vessels associated with the floor levels and graves of the church. A fuller analysis of the church ceramics is given below (see "Summary of Ceramic Finds").

**Wall Paintings**

More than 2,000 small fragments of painted plaster were found on the interior and south exterior of the church and narthex, primarily in levels of stone and tile debris (Figs. 31–33). The recovered fragments represent a small percentage of the decorative program that would have covered the floor according to their pattern. For a probable fragment of the screen. At the same point along the south wall we discovered the painting of a saint's garment (Fig. 31).

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62. The tiles measure 0.47 x 0.40 m. The coarse, reddish-yellow (5YR 6/6) fabric has large stone inclusions. There is no evidence that the tiles were evenly distributed across the floor according to their pattern.

63. See 71 for a probable fragment of the screen. At the same point along the south wall we discovered the painting of a saint's garment (Fig. 31).
Figure 31. Church: wall painting from south interior wall. Border of saint’s robe.

Figure 32. Church: wall painting. Fragments from step pattern.

Figure 33. Church: wall painting. Fragments from kufesque pattern.
walls and vault of the church.  

Many of the fragments still preserve the mortar backing that evened the wall surface for the application of paint. Red and blue segments of paint were found in situ on the north and west walls of the nave respectively; these belong to the lowest register of the wall decoration and were presumably protected from destruction and deterioration by the rubble fall from the walls and vault.

Surviving pieces of plaster found within the rubble fill were decorated with a wide variety of ornamental patterns. There were no traces of inscribed letters. Only two fragments could be associated with the representation of human figures, a foot and the hem of a garment. The small fragment of a painted foot with a striped sandal is the only clue that the church was once decorated with narrative scenes. Of the standard composition of full-length saints that decorated the lower walls of churches in this period, the only surviving trace at Panakton is the left edge of a garment found on the south wall of the nave close to its east end (Fig. 31). Set against a deep blue background, the garment, a long red tunic and some sort of a mantle, cascades outward in three zigzag folds and terminates in a border articulated by a thick white line enclosing crosslets. A similar decorative detail can be seen in mid-13th-century churches in Attica, where it ornaments the clothing or halos of saintly figures.  

The location of the painting, at the exact point where the tile pavement is interrupted, and the traces of a vertical red field bordered in white to the left of the figure suggest that the saint was depicted beside the sanctuary of the church; the painted border demarcated the division of ecclesiastical spaces and, as in many later Byzantine churches, may have indicated the location of a sanctuary barrier.

The wide range of ornamental patterns on the fragments fits comfortably within the repertoire of decorative schemes used in painting in this region, and elsewhere, in the Late Byzantine period. Two of the patterns were found in abundance; others await further reconstruction and study. A step pattern decorates several large fragments excavated in the church nave (Fig. 32). Contained within a rectangular field framed in black, the pattern is set against a plain white background enclosed within a red field of color. Within the framed composition, the light blue steps on the exterior of the rectangle are visually anchored to the border by amber triangles. These motifs, in turn, enclose red stepped crosses decorated at their centers with yellow diamonds with dashes pointing inward. A narrow white line and a hint of blue paint are found at the edge of the fragments. In all likelihood, this is the same blue paint that serves as a backdrop for the sainted figures on the lower register of the walls. The segregation of the pattern suggests that it was used to fill an empty space or to separate scenes within the church. The step pattern is popular in medieval churches in Greece and its use at Panakton situates the settlement's ecclesiastical painting within broader trends of church decoration of the period.

Traces of ornamental kufesque painted in blue and red on a white ground were also discovered during excavation of the nave (Fig. 33). One of the fragments is decorated with the tips of two cuneiform bars, which would have been the uppermost point of the pattern. Parts of flowering shoots that usually spring at the bottom of the bars are preserved on a second fragment. This decorative element was often used in late medieval painting to fill spaces between narrative scenes and holy portraits, and examples can be found in rural churches in Attica and the Argolid.

64. A similar phenomenon of preservation, in which a relatively small amount of painted plaster was found, was noted in excavations of a church at Nichoria, Messenia. There, the excavators concluded that "the plaster fragments would have deteriorated and disintegrated more easily if exposed to plowing and weathering." See Rosser 1983, p. 412.


66. It is possible that some of the sculpted works found in the nave of the church belonged to a screen. See 71 (Fig. 52), which was found in the northeast corner of the nave.

Catalogue

Pottery

42  1991-594: Bowl

From floor level of south side of nave and deposit on south exterior of church (SU 153, 207, 250). Thirteen joining and two nonjoining fragments of rim and body. P.H. 0.086, Diam. 0.18 m. Fine, reddish-yellow (5YR 6/6) fabric with small stone inclusions; traces of pitting on exterior surface. Yellow glaze over white slip on interior and exterior of rim. Incised parallel grooves on interior below lip, at join of rim and upper body, at middle of body, and at join of body and base.

Similar to a rim sherd found in survey at Pyli tower: Munn and Zimmerman Munn 1989, p. 119, no. 137. Similar bowls, dated to the 13th century, have been found at Thebes and Corinth. Cf. Koilakou 1997, p. 81, fig. 20; Sanders 1987, p. 165, fig. 2.1.

43  1999-181: Bowl

From floor level of south side of nave (SU 207, 250). Two joining fragments of ring base and lower wall of bowl. P.H. 0.028, Diam. of base 0.05 m. Hard-fired, red (2.5YR 5/8) fabric. Strong brown glaze over interior and exterior surface. Tripod marks on interior.

For a similar vessel, see 2.

44  1991-595: Bowl

From floor level of south side of nave (SU 207). Four joining fragments of raised ring base and lower wall of bowl. P.H. 0.046, Diam. of base 0.067 m. Hard-fired, fine reddish-yellow (5YR 6/6) fabric with small stone inclusions. Yellow glaze over white slip on interior; plain exterior. Incised spiral at join of base and lower wall.

45  1991-593: Shallow bowl

From fill and floor level of nave (SU 101, 201, 206, 207). H. 0.05, Diam. of base 0.055, Diam. of rim 0.153 m. Fourteen joining and five additional fragments comprising complete profile of glaze-decorated plate with everted rim. Fine, reddish-yellow (5YR 7/8) fabric with few inclusions. Green and yellow glaze over white slip in interior; trace of glaze on exterior rim and body.

Similar bowls, dated to the mid-13th century, have been found at Corinth. Cf. Williams et al. 1998, p. 236, pl. 44:d. See 50 for an additional glaze-decorated vessel.

46  1999-116: Bowl

From floor level of narthex and fill immediately above floor (SU 306, 308). Eleven joining and three additional fragments forming complete profile. H. 0.07, Diam. at base 0.05, Diam. at rim 0.12 m. Fine, reddish-yellow (7.5YR 7/6) fabric with small stone inclusions. Slightly incurring lip with interior ridge below rim. Yellow-green glaze on interior over cream-colored slip. Deeper green glaze pooled at lip. Glaze over lip on exterior with some dripping on outer surface of vessel. Incised spiral on interior of base.

47  1999-131: Bowl

From fill immediately above floor level of narthex (SU 306). Two joining fragments of ring base and lower wall. P.H. 0.032, Diam. of base 0.05 m. Moderately fine, reddish-yellow (5YR 7/8) fabric with small stone inclusions; smoothed
Figure 34. Church: fine wares. Scales 1:2 (42–44, 46–48, 51) and 1:3 (50)
exterior with signs of pitting. Mustard yellow glaze over white slip on interior; plain exterior. Three concentric circles incised at center of base.

**Figure 35 (above, left).** Church: fine ware plate from nave (45). Scale ca. 1:2

**Figure 36 (above, right).** Church: fine ware bowl from narthex and tomb (49). Scale ca. 1:2

**48** 1999-145: Bowl

From floor level of narthex (SU 310). Four joining fragments of ring base and lower wall of bowl. P.H. 0.04, Diam. of base 0.069 m. Moderately coarse, reddish-yellow (5YR 7/6) fabric with stone inclusions; pitting on exterior. Yellow glaze over cream-colored slip on interior.

**49** 1999-120: Bowl

From floor of narthex (SU 309, 310) and inside grave 1992-2. Within the tomb, fragments were recovered in levels above and below the marble cover slab (SU 311, 312). Sixteen joining and eighteen additional fragments of body of glazed bowl. P.H. 0.057, est. Diam. 0.20 m. Fine, hard-fired pink (5YR 7/6) fabric with sandy inclusions. Traces of two tripod marks on upper surface. Incised with abstract floral pattern.

**50** 1991-644: Jug

From level below collapsed wall debris to the southeast of church exterior (SU 102). Nineteen joining fragments of rim and upper body and three joining fragments of base of juglet with trefoil rim (nearly complete profile). Est. H. 0.17, Diam. of base 0.07 m. Fine, reddish-yellow (7.5YR 7/6) fabric with small stone inclusions. Flat base offset at base of wall. Narrow handle (0.018 m) attached below rim. Green and brown glaze decoration over white slip on vessel exterior and on interior around rim.

See 45 for a glaze-decorated plate.

**51** 1991-27: Pitcher

From test trench on south side of church (J11-6, SU 6) in association with graves 1991-1 to 1991-4. H. 0.094, Diam. at base 0.034 m. Sixteen joining fragments forming complete profile. Handle missing. Coarse, reddish-yellow (7.5YR 7/6) fabric with many white gritty inclusions. Deep green, mottled glaze applied unevenly to outer surface.
52 1999-146: Bowl
From floor level of narthex (SU 310). Six joining fragments of horizontal, thick rim and upper body. P.H. 0.097, Diam. of rim 0.30 m. Coarse, reddish-yellow (5YR 6/8) fabric with gritty inclusions; pitting on interior and exterior surface. Smoothed on upper surface. Two bands of combed, wavy lines below rim.

53 1999-142: Cooking pot
From floor level of narthex (SU 310). Thirteen fragments forming nearly complete profile. Est. H. 0.106, Diam. at rim 0.12 m. Vertical, thickened rim. Single preserved strap handle (W. 0.026 m) attached at rim and lower body. Gritty, light red (2.5YR 6/8) fabric with sandy inclusions. Traces of burning on exterior.

54 1999-119: Table amphora
From fill immediately above floor level of narthex (SU 306). Fifteen joining fragments of rim, handle, and shoulder. P.H. 0.15, W. of handle 0.038–0.04, Diam. of rim 0.08 m. Gritty, reddish-yellow (5YR 6/8) fabric with black and white inclusions. Smoothed surface on rim and outer face of handle. Parallel ridges on outer surface of handle and raised ridge marking join of rim and neck. Handle attached at neck and upper body.

Small Finds
55 1992-109: Silver ring
From fill immediately above floor level of narthex (SU 306). Diam. 0.021, Th. 0.003 m. Narrow strip bent into a circle; bezel missing.

56 1991-384: Bronze lamp pendant or censer handle
From floor level on south side of nave (SU 207). H. 0.036, W. 0.047 m. Copper alloy handle with three loops for chain suspension.
Figure 39 (above, left). Church: bronze lamp pendant or censer handle (56)

Figure 40 (above, right). Church: fragments of possible censer (57)

Similar handles found at Corinth have been dated broadly to the Byzantine period. Cf. *Corinth* XII, p. 128, nos. 861, 862.

57 1991-345: Bronze censer base and lid(?) Fig. 40

From fill behind prothesis table base (SU 208). Diam. of upper plate 0.055, Diam. of lower plate 0.08 m. Upper, circular disc with hole for suspension attachment. Lower disc has six preserved rivets for attachment.

58 1991-445, 1992-163: Bronze handles Fig. 41

From floor surface of nave (SU 207, 250). Two handles from vessel. Curved profile. L. 0.063, 0.075 m. A hole at the bottom of the handles used for attachment to vessel.

Cf. *Corinth* XII, p. 75, no. 565, “Byzantine period.” Similar handles found in Frankish burials in the Hephaisteion in Athens; Ivison 1993, fig. 263.

59 1992-131: Bronze candle holder Fig. 42

From level of destruction debris along north exterior of church (SU 404). Upper spike from candlestick holder. Est. L. 0.093 m.

See *Corinth* XII, p. 128, no. 864, “Late Byzantine context.”

60 1992-201: Bronze cup or bowl Fig. 43

From floor level of narthex (SU 308). L. 0.044, W. 0.023, Th. 0.001 m. Rim and upper body of flattened bronze vessel. Stamped lily surrounded by beaded circle below band.

61 1992-164, 202, 204, 236: Bronze wick holders Fig. 44

From fill and floor level of narthex (SU 306, 308, 310). Of varying lengths and widths, the strips are pierced once or twice at a single end in order to thread the wick through the metal strip.

Figure 42. Church: spike from bronze candle holder (59)

Figure 43. Church: rim of bronze bowl (60)


Figure 45. Church: asterisk (?) (63)

Similar strips have been found at numerous medieval sites in Greece and are often associated with churches or burials. For wick holders from Nichoria, Messenia, see Rosser 1983, p. 406, nos. 513–518. At Corinth, the ends are not pierced but are folded to form a tube to hold the wick. See Williams and Zervos 1996, p. 24, no. 6. Additional wick holders are inventoried as 1992-8, 1992-89, 1992-90, 1992-257, 1992-287, 1992-296, 1992-310.

62 1992-297: Bronze belt buckle tongue

From floor level of narthex (SU 310). L. 0.024, Th. 0.002 m. Thin strip of bronze bent into a loop at one end and pointed at the other end.

63 1992-43: Asterisk (?) Fig. 45

From fill along south exterior wall below wall tumble (SU 153). H. 0.036, L. 0.091 m. Two iron strips crossed and attached at the center. Although the shape resembles an asterisk (a metal frame intended to protect the liturgical offerings), the material is unusual.

64 1991-402: Iron hook

From floor of nave (SU 207). L. 0.086 m. Iron hook curved at one end and damaged at narrow end.

65 Iron nails Fig. 46

More than forty iron nails and nail fragments were recovered in the excavation of the narthex, primarily in units 306, 308, 309, and 310, which represent the fill immediately above the floor and the floor level. Additional nails were found in units 150, 154, and 159, to the south of the church, as well as in unit 250, the floor level of the apse. Most of the nails have square shafts and rectangular heads; many of the shafts taper at the ends. Their size and their discovery on the floor level of the narthex suggest that many of the nails were associated with roof construction.


66 1992-332, 336, 337, 338, 339, 343, 393: Iron spikes and nails Fig. 47

Seven iron spikes and nails were found within the northeast tomb of the narthex (grave 1992-2) resting on the lower portions of the skeleton. The large size of the spikes excludes their use in the construction of a wooden coffin.69 As discussed below, however, a thick wooden board (0.06 m) was placed over the lower halves of the bodies, sealing the tomb. It is possible that the long spikes were driven into the walls of the tomb in order to form horizontal supports for the plank, and fell into the tomb as the plaster lining and wooden board eroded.


69. In comparison, see the placement of nails from a Late Byzantine coffin excavated in Polystylon, Thrace. See Bakirtzis 1983, p. 18, fig. 5; Agelarakis and Agelarakis 1989, pl. IV. For wooden coffins, see also Fol et al. 1989, pp. 329–330.
G L A S S

67  1991-300: Lamp
From floor of nave in northeast corner (SU 205). Est. Diam. 0.05 m. Nipple base of lamp with three joining and eight additional fragments from wall of vessel. Incised double ring marks join between base and wall of vessel. Clear glass with slight purple tinge.

68  1991-321, 1991-643: Lamp(s)
From surface clearing on south side of church (SU 101); most likely associated with stone-walled vault at the southeast corner of the church (grave 1991-5). Two coil handles and one joining body fragment of glass lamp(s). Top end of thread for handle attached to body, looped, pinched at point of reattachment and then dragged down side of body. Clear glass with green tinge; all surfaces are heavily opacified.

Although fragmentary, the glass may be compared to handles on lamps that were excavated in 14th-century levels at Corinth; cf. Williams and Zervos 1993, pp. 22-25.

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Figure 48. Church: base of glass lamp from nave (67)

Figure 49. Church: handles and body fragment of glass lamp(s) found on south exterior (68)
ARCHITECTURAL SCULPTURE

The fragments of architectural sculpture reveal strong stylistic similarities to examples from Attica and Boeotia. The nine works are incomplete, suggesting that they were reused for the decoration of the church. It is unclear whether the use of spolia for architectural decoration at Panakton signaled a conscious desire to maintain continuity with earlier religious structures in the area or was fostered by economic necessity. In either case, the use of spolia, also seen locally at the churches of the Zoodochos Pege near Pyli and at H. Paraskeve near the modern village of Panakto, is in keeping with standard Byzantine building practices.\(^70\)

The sculpted fragments can be divided into three functional groups: altar table pieces (69), doorjams (70), and epistyle fragments (71–77), some of which were used as door lintels in the Panakton church. Close parallels can be found in 12th-century sculpture from the church of Christ the Savior in Amphiissa,\(^71\) the katholikon of the Sagmata monastery near Thebes,\(^72\) and in Hagios Nikolaos sta Kambia, near Orchomenos.\(^73\) The technique and designs of the carving, however, are best compared to the 12th-century sculpted ornamentation of the katholikon of Hosios Meletios, a church visible from Panakton and an important monastic center in the region.\(^74\) In all likelihood, the atelier patronized by H. Meletios and its *metochia* carved the majority of the Panakton pieces. Although the building or buildings for which these sculptures were originally made cannot be identified, it seems most likely that the ornamented blocks, as well as the tabletops and doorjams, are spolia from local monuments and that little new carving was undertaken for the decoration of the Panakton church.

Catalogue

69 Fragments of rectangular table(s)

Group I. a. 1991-598a: L. 0.275, W. 0.160, interior Th. 0.042, border Th. 0.055 m; b. 1991-598b: L. 0.419, W. 0.22, int. Th. 0.041, bor. Th. 0.060 m; c. 1991-598c: L. 0.220, W. 0.152, int. Th. 0.041, bor. Th. 0.060 m; *group II*: max. W. 0.473 m; d. 1991-598d: L. 0.237, W. 0.223, int. Th. 0.037, bor. Th. 0.059 m; e. 1991-598e: L. 0.173, W. 0.130, int. Th. 0.041, bor. Th. 0.062 m; f. 1991-598f: L. 0.191, W. 0.141, int. Th. 0.036 m; g. 1991-598g: L. 0.113, W. 0.053, int. Th. 0.037 m; h. 1991-598h: L. 0.232, W. 0.177, int. Th. 0.040, bor. Th. 0.064 m; i. 1991-598i: L. 0.207, W. 0.149, int. Th. 0.039, bor. Th. 0.062 m; j. 1991-598j: L. 0.108, W. 0.061, int. Th. 0.036–0.039 m; *group III*: k. 1991-598k: L. 0.110, W. 0.075, int. Th. 0.040, bor. Th. 0.058 m; l. 1991-598l: L. 0.320, W. 0.187, int. Th. 0.042, bor. Th. 0.059 m; m. 1991-598m: L. 0.193, W. 0.162, int. Th. 0.039–0.042 m; *other, nonjoining pieces*: n. 1991-598n: L. 0.383, W. 0.126, int. Th. 0.042, bor. Th. 0.063 m; o. 1992-1: L. 0.158, W. 0.128, bor. Th. 0.065 m; p. 1992-26: L. 0.098, W 0.088, bor. Th. 0.057 m; q. 1992-27: L. 0.105, W. 0.550, bor. Th. 0.056 m; r. 1992-362: L. 0.134, W. 0.610, bor. Th. 0.595 m; s. J11–6 fragment: L. 0.146, W. 0.135, int. Th. 0.031, bor. Th. 0.053 m; t. 1992-363: L. 0.083, W. 0.049, bor. Th. 0.057 m.

Thirteen fragments were found in the church interior, twelve of them in the two layers above the medieval floor within the curve of the apse (SU 202, 204).

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70. For Zoodochos Pege near Pyli, see Bouras 1993–1994, p. 31, fig. 10; for H. Paraskeve near Panakto, see Bouras, Kaloyeropoulou, and Andreadi 1970, figs. 256, 257. An unpublished photograph of the altar at Panakto is found in the Benaki Photo Archives, no. 19306.

73. Schultz and Barnsley 1901, pl. 52:2.
Four fragments were found to the south exterior of the church in surface cleaning, one was found in the surface cleaning of the narthex, and two pieces were found to the west of the narthex exterior. The pieces form rectangular plaques, and on the basis of their findspots were most likely used for the upper, horizontal surfaces of the altar and prothesis (offering) tables. The existence of seven, nonjoining corners (group I, group II, n, o, p, r, and i) demonstrates that at least two tabletops are represented. The tables had raised borders running around a very shallow, flat center well. A complete section across the width of the table (group II) gives an absolute width of one tabletop of 0.473 m. This would not be out of scale with the $0.50 \times 0.70$ m stone altar base still in situ.\(^{75}\) The fragments of marble are very white and have many mineral inclusions. Fragments $b$–$e$, $k$, and $l$ are all likely to have been on the same side of one table as they show similar cutting marks on their exterior edges. A central, roughed area flanked at top and bottom by smoother areas suggests that these fragments may have been cut down from a plaque that was originally made with a tongue to fit a grooved post. The bottom surfaces of many of the fragments are cut with diagonal chiseling marks.

The tables show very general similarities to Classical Greek tray design altar tables, though no exact parallel is apparent.\(^{76}\) Antique stelai and Early Christian and Byzantine chancel barriers present other typological parallels; the latter is appealing given the possible scar of a cut-down tongue on the one long edge. Also, the beveled border of the Panakton pieces is rare in antique stelai. Early Christian tables of similar rectangular form include a 6th-century table from Basilica A at Nikopolis, with an undecorated surface surrounded by a molded edge; the altar in situ at the east end of the north portico of the atrium of the late-4th- or 5th-century extramural basilica at Dion, with a cross carved at center;\(^{77}\) and two tables of Proconnesian marble from Xanthos, one of which was decorated with a foliate design.\(^{78}\) In all cases though, the molded border is more elaborate than the simple bevel of the Panakton pieces. An Early Christian table from Mactar, Tunisia, inscribed in both Latin and Greek and likely to be a reused funerary slab, has a simpler border but is overall far more roughly cut than the Panakton fragments.\(^{79}\) None of the extant Panakton fragments has any trace of decorative relief carving.

Date uncertain.

75. A similarly composed altar, with a reused medieval plaque set into a masonry base, fills the entire apse at H. Paraskeve near modern Panakto.

76. See Gill 1991, fig. 8, for designs of stone altar tables from the Classical period; fig. 28, for the table of Demeter, Kore, and Zeus from Naxos; pl. 18 for a fragment possibly from a cult table for Men Tyrranos, Athens; pl. 19 for tabletop fragments from the Amphipoleion, Oropos; and pl. 22 for a fully preserved tabletop in the National Museum, Athens. These commonly have simple, rounded depressions, but the last two have molded rectangular rims around the *esbarai*. These pieces, however, are only generally similar to the Panakton fragments.

77. Chalkia 1991, pp. 54–55; 215–219; fig. 44 (Nikopolis); figs. 69, 70 (Dion). Note the tongue visible on the edge of the altar slab in fig. 70, which is similar in placement to the scar on the Panakton table.


Figure 51. Church: doorjamb fragments (70)

70 Fragments of doorjamb(s)

a. 1991-599a: L. 0.510, W. 0.187, Th. 0.109 m; b. 1991-599b: L. 0.495, W. 0.178, Th. 0.121 m; c. 1992-13: L. 0.20, W. 0.180, Th. 0.119 m; d. 1992-221: L. 0.143, W. 0.033, Th. 0.016 m; e. 1992-312: L. 0.050, W. 0.023, Th. 0.007 m.

Fragment a was found behind the altar in the church's apse in the same rubble layer that contained several of the altar table fragments (SU 204). Fragment b was found in the surface layer at the west end of the nave interior. Fragment c was found in a layer of rock tumble in the northern section of the house situated immediately west of the church. The smaller fragments were found at the floor level of the church's narthex (SU 308, 310). The three large, nonjoining pieces of doorjams, a–c, are all of similar profile. The jambs have a central concavity, ca. 0.033–0.042 m wide, flanked at both sides by two shallow flanges and then flat external surfaces of 0.066–0.073 m. The flanges are all of varied widths, ranging from 0.013 to 0.024 m. The cut profiles of a and b run to the fragment's edges, showing that they are interior pieces. Fragment c, however, has a terminal border at one end and thus is a top- or bottom-fitting piece. The fragments are of fine-grained white marble with little coloration or veining, and the profile is cut in a soft manner and is somewhat abraded. Fragments d and e preserve relatively crisp and angular back profiles, although a has been roughly cut down on the reverse. Fragments d (two joining pieces) and e are small fragments with rounded profiles, probably chips from the fillets of other doorjamb pieces.

The profile of the three larger pieces is very similar to that of an unpublished piece in the lapidary collection at the monastery of H. Meletios. This may be evidence of an atelier working in the area or, alternatively, that all of the pieces come from another, earlier site.80

Date uncertain (possibly 12th century).

71 Epistyle fragment with bird motif

a. 1991-600a: L. 0.480, W. 0.130, Th. 0.070 m; b. 1991-600b: L. 0.225, W. 0.130, Th. 0.060 m. Joining fragments a and b were found in destruction debris in the northeast corner of the church. It is possible that they formed part of a

80 A member of the community currently living at H. Meletios reported (pers. comm., April 2001) that the piece in the lapidary collection had been found in the hills above the monastery.
The pieces combine a foliate motif with zoomorphic forms. Two rectangular panels of acanthus leaf motifs are surrounded by a double-knotted angular guilloche of three ridges. The acanthus leaves curl around drill holes ca. 0.005–0.010 m deep. A large portion of the ornamental surface of the larger fragment is covered with the motif of two birds eating from stacked fruit baskets. Acanthus leaves spring from the lower basket and form a carpet pattern onto which the birds are superimposed. The carving is at different levels, with the birds protruding sharply from the surface, while the foliage immediately surrounding them projects to a lesser extent. The interrupted guilloche and acanthus motifs framing these elements are in lowest relief, and the birds, baskets, and carpet pattern extend past the boundaries of the enclosing guilloche. The birds’ bodies have a decoratively carved surface pattern of parallel ridges, which serves to denote the different parts of their bodies. The fragments’ carving style favors ridges defined by fairly deep grooves with angled sides. A smooth ledge is adjacent to the top of the ornamented surface, while an area of rougher picking adjoins the bottom surface. The reverses of the fragments have been cut down and now are concave with very rough picking, in diagonal strokes, across the surfaces. The pieces are of white, fine-grained marble.

The fragments have close comparanda, notably two undated pieces from the Athenian Agora. The first of these is a particularly close comparison: it shows a bird, its body carved with the same types of lines to represent its feathers, pecking at double-stacked baskets of grapes from which vines sprout. In contrast, the background behind the bird is plain, though the piece may be unfinished. The second Agora piece shows a bird with similar surface treatment, though its breast plumage is picked out in shallowly drilled holes. Utilizing different depths of carving, as at Panakton, the figure of the bird overlays an angular guilloche, seen under its raised wing. Although the heads are somewhat damaged, the eyes of the Panakton birds seem to have been carved less fully than those in the Agora fragments. A 12th-century templon fragment with similarly carved birds, drinking or eating from a basin on a high pedestal superimposed on a lower, foliate background, is found at the church of Christ the Savior in Amphissa. The Panakton method of bi-level carving and the forms and technique of the leaf and stem motifs are also similar to those employed in the 12th-century sculpture from the Sagrama monastery in Boeotia, founded by a pupil of Saint Meletios, and in the fragment from the monastery of H. Ioannes Kynegou at the Byzantine and Christian Museum of Athens. The angular guilloche of multiple ridged elements is relatively common in Attica and Boeotia in the late 12th and early 13th centuries. Examples may be seen at the Little Metropolis, Athens, and at H. Meletios. While only a single knot was carved in these works, the Panakton pieces feature a less common double knot.

Late 12th or early 13th century.

81. Grabar 1976, pl. LXXX, no. 87a–b. The pieces appear to be missing from the Agora collection and have no recognizable Agora accession number.
85. See Grabar 1976, pl. LXVIa, for the Little Metropolis; pl. LXXVIa, c for H. Meletios; also Orlandos 1939–1940, p. 73, fig. 24, p. 97, fig. 44, p. 101, fig. 48, p. 105, fig. 52. Other pieces from the Athens region that are in the Byzantine and Christian Museum of Athens also have angular, knotted guilloches; see Mavroedi 1999, nos. 204–206.
Figure 53 (above, left). Church: epistyle fragment (72)

Figure 54 (above, right). Church: epistyle fragment with foliate motif (73)

72 Epistle fragment
1992-74: L. 0.110, W. 0.144, Th. 0.040 m. Found at the church’s exterior, near the western wall of the narthex. 72 is a small fragment of an epistyle made of fine-grained white marble decorated with a foliate rinceau topped by a plain vertical border. The leaves are rounded and the carving style and design are similar to those of 73 and 74. The top band of 72 is the same width as that of 73 and 74. 72 may be a nonjoining piece of 74, especially given its findspot, or of 73. 12th century.

73 Epistle fragments with foliate motif
a. 1991-602a: L. 0.340, W. 0.150, Th. 0.100 m; b. 1991-602b: L. 0.078, W. 0.075, Th. 0.034 m. Fragments a and b, which do not join, were found in the eastern half of the church in a destruction deposit. The two small fragments are decorated with flat, soft vegetal forms similar to those seen on 74. The decoration comprises sweeps of flat ridges swirling into the stems of tendrils curled around drill holes. The carving technique is similar to that of 74, and the pieces may be fragments of the same work. The white marble block from which this piece is carved is more massive than the other epistle fragments, and its top edge is destroyed. In comparison to other pieces, the tilt of the carved face is much more pronounced in 73, as if it were meant to be seen from a higher position. 12th century.

74 Epistle fragment with Greek cross and foliage
1991-601: L. 0.157, W. 0.135, Th. 0.073 m. Found 4 m southwest of the church in a surface deposit. This small fragment of an epistle is decorated with a Greek cross, broken at its right arm, and abstract vegetation. A lightly inscribed X marks the crossing of the two arms and the cross is outlined with a second band.

The outlined, X-inscribed foliate cross motif is also seen in a 12th-century window capital from Athens 86 and at H. Melo 6, on the lintel above the northernmost door between the narthex and nave of the catholicon.87 The leaves of the vegetation, which curl around fairly wide drill holes, are carved in a flat, soft technique raised from a plain background. The carving technique is similar to what Laskarina Bouras describes as the 12th century’s “soft” modeling style, and is close to that of 73. The fragments may come from the same piece. The decorated face is flanked by smooth, flat profiles, each 0.025 m wide. As with several other pieces in the Panakton group, a white, fine-grained marble was used. The reverse seems to have been cut down. 12th century.

87. Orlandos 1939–1940, p. 99, fig. 46, bottom.
75 Epistle fragment with abstract acanthus rinceau and birds

Fig. 56

1992-233: L. 0.740, W. 0.230, Th. 0.214 m. The fragment was found in the doorway between the narthex and nave of the church, resting directly above the medieval floor surface. The epistle fragment was obviously cut down and reused as a lintel block for the nave’s primary entrance. 75 is decorated with five stylized spiky acanthus leaves bounded at the ends by an eagle at left and peacock at right. Incised lines articulate the birds’ bodies and denote their plumage. Varied patterns detail different parts of their bodies. The eagle’s breast and upper wings are decorated using arched, scalelike incisions, while lines demarcate its tail and lower wing feathers. The peacock’s feathers are executed similarly, with the addition of drill holes to show the eyes of the tail plumage. The eagle interrupts the acanthus pattern, while a more vinelike leaf surrounds the peacock. The epistle is damaged at this end, cutting off the peacock’s head. The motifs, widely spaced on the rough-picked background, are carved in a very flat, champlevé style. An undecorated, narrow flat band caps the foliage and zoomorphs. The bottom face is undecorated, and has a door pivot hole at right, below the fourth and fifth acanthus elements.

Several 11th-century pieces provide solid comparisons for this Panakton fragment. An acanthus-decorated epistle, reused as a lintel over the north door of the early 12th-century church of H. Nikolaos sta Kambia, near Orchomenos, has a very similar carving technique and design, and is closely related to this epistle. 38 Sculpted pieces in Athens also show stylistic similarity to the Panakton epistle. The Byzantine and Christian Museum in Athens has two 11th-century fragments that have a comparably flat quality to the carving, though these are less crisp in execution than the Panakton piece. 39 The Little Metropolis has two zoomorphic panels that show birds with differently patterned, though more highly stylized, plumage. 40

11th century.

76 Chancel barrier fragment with rinceau and guilloche

Fig. 57

1991-603: L. 0.209, W. 0.130, Th. 0.070 m. Found in the eastern half of the church interior, in destruction debris. 76 is a small corner fragment of a chancel plaque with a flat rinceau bordering an interior angular guilloche of raised, ridged profiles. The guilloche is broken off and only a corner of its border and the edge of one knot is extant. The rinceau border surrounding this guilloche is carved in a flat technique with drill holes punctuating the turning of the vine's tendrils. The leaves are broad and not very distinct from the vines, ending in sharp points. A shallow groove separates the areas, so that while the surface flatness is similar to that of 73, the motif is denser and more unified than in the other piece. The rinceau is offset from the exterior of the piece and the guilloche by flat, undecorated bands. The

Figure 56. Church: epistle fragment with abstract acanthus rinceau and birds (75)

Figure 57. Church: chancel barrier fragment with rinceau and guilloche (76)

88. Schultz and Barnsley 1901, p. 70, pl. 60.
Figure 58. Church: epistyle fragment with acanthus in guilloche (77)

The piece is of similar, if not the same, white marble as others in the group. The corner is damaged and the back surface is also highly abraded. The piece is of a uniform thickness. Among the closest comparisons is the plaque of the south chancel barrier of H. Meletios,\(^1\) where the carving technique, mixing a flat, broad-leafed outer border with an interior guilloche, is quite similar to that used in the Panakton piece.\(^2\) A second, unpublished fragment in the H. Meletios lapidary collection shows a comparable mix, and its guilloche is a better parallel as it is formed of ridges of equal width rather than a band with fillets. However, the H. Meletios plaques have sunken interior elements surrounded by an angled border.

Early 12th century.

77 Epistyle fragment with acanthus in guilloche

\(^{a}\) 1992-2: L. 0.295, W. 0.135, Th. 0.060 m; \(^{b}\) 1992-34: L. 0.080, W. 0.063, Th. 0.040 m; \(^{c}\) 1992-268: L. 0.175, W. 0.146, Th. 0.054 m; \(^{d}\) 1992-401: L. 0.193, W. 0.070, Th. 0.034 m.

This epistyle segment was found broken at the exterior of the narthex, near the west entry. In all likelihood, these fragments formed part of the lintel over the west door.\(^3\) The four fragments comprise the remnants of a reused epistyle or purposely cut lintel decorated on one face with an acanthus and guilloche motif. The guilloche is made of a thick, slightly flattened central band flanked by two narrow fillets. Interspersed between and stemming from the guilloche itself are spiky acanthus leaves. The leaves and bands are carved in a ridge and furrow technique seen elsewhere in the Panakton marble group. As in other Panakton pieces, the bottom leaves of the encircled acanthus are formed around wide drill holes. The motif has been carved on a broad angled face, topped by a vertical, undecorated flange. The bottom edge of \(^{a}\) is broken off in a jagged line.

The piece is quite similar to the lintels over the east doors in the narthex of H. Meletios,\(^4\) although in the latter the leaves in the guilloche have rounded tops. The H. Meletios comparison suggests an 11th- or 12th-century date for 77, with the later date preferred. Another piece with an acanthus-in-guilloche motif in the collection of the Byzantine and Christian Museum in Athens supports a 12th-century date.\(^5\)

12th century.

91. Orlandos 1939–1940, p. 73, fig. 24.
92. The motif of a foliate element surrounded by a ridged guilloche and another, more softly carved, foliate border is generally found in the 12th century and after; see Mavroeidi 1999, no. 296.
94. Orlandos 1939–1940, p. 70, fig. 21; Grabar 1976, pl. LXXII, no. 85; d. 95. Mavroeidi 1999, no. 251.
MEDIEVAL BURIALS

The excavations revealed five complete graves as well as indications that other graves still await future excavation (Fig. 59). A minimum of five graves are known to exist south of the church, at least one inside the church, and at least one more to the east of the church. Scattered pieces of human bones also turned up in other locations. Some of these could reflect the reuse of graves in the area of the church, while others may simply result from random disturbance around the site.

The five completely excavated graves and portions of five others that were encountered in one test trench (J11-6; Fig. 79) indicate that two kinds of graves were in use at Panakton during the 14th century. Within the church, two subfloor vaults were built of shaped stones and mortar, projecting slightly above the floor in the northeast and southwest corners of the narthex (Fig. 27). A third, much cruder construction was added to the exterior wall of the church at its southeast corner (Fig. 71). The two other graves, and apparently most of the partially uncovered graves, consisted of simple pits dug into the earth. These lay outside the church on its north, east, and south sides.

STONE-LINED GRAVE VAULTS

All three stone-lined vaults were in some way incorporated into the structure of the church and its attached narthex. The two inside the narthex were clearly more carefully constructed than was the one attached to the church exterior wall.

GRAVE 1992-1

Grave 1992-1 lay against the interior face of the south wall of the narthex, extending 2.30 m east from the west wall and 1.07 m north from the south...
The south and west interior walls of the narthex formed the south and west sides of the vault. Cut limestone blocks standing upright formed the interior north and east sides. A second row of less well cut limestone blocks framed the inner lining outside it on both the north and east sides, making these sides each 0.48 m thick. The interior space of the grave measured 1.80 m east–west by 0.56 m north–south. The skeleton lay 0.47 m below the base of the narthex south wall. This burial chamber had been covered by segments of a large limestone slab or slabs that had collapsed inward, suggesting a partially hollow space beneath (Fig. 60). There was no trace of a prepared grave floor. Beneath the cover slabs, a second limestone slab rested upon the inner liner of the north wall and upon a limestone slab set vertically inside the south wall. This second slab covered the head of the grave’s occupant. It measured roughly 0.66 m north–south by 0.40 m east–west. Yet another limestone slab stood vertically above the inner liner wall alongside the north end of this head cover, creating a sort of alcove above the head of the grave.

Numerous small and medium-sized fragments of thin clear glass, including two loop handles, were recovered while excavating the grave fill. These glass fragments are reminiscent of glass lamps found associated with a Frankish-period cemetery at Corinth.96

The adult male who had been laid to rest in this grave vault lay fully extended on his back with his head at the west end (Fig. 61). His head had been propped up slightly between limestone side head props to face toward the east. There was no sign of any chin prop to prevent the mouth from falling open after relaxation of rigor mortis. The man’s elbows flared slightly from his body. His forearms were crossed over his torso with the

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96. Williams and Zervos 1993, pp. 22–25. See also 68 above.
right forearm almost at a right angle to the spine and the right hand lying between the left hip and left elbow. The left forearm angled upward toward the right shoulder, and the left hand lay above the right breast. His legs were fully extended with the lower three-fourths of the lower legs and feet projecting beneath the eastern inner lining wall of the grave vault. His knees and feet were quite close together, as they would be if the ankles had been bound together. This indicates that the inner lining wall had been built later than the body’s interment, although the conformity with the walls of the narthex strongly suggests that he was interred after the narthex was built.

We might reconstruct the sequence of events as follows. First, the narthex was constructed. Burial 1992-1 was then placed in the southwest corner of the narthex with no stone lining walls other than the narthex walls. Finally, the north and east stone liners were built above the grave, although the east liner wall covered the man’s lower legs and feet. The top of the head lay ca. 0.20 m away from west wall of the grave vault, and the body seems to have been twisted somewhat toward the right and bent slightly in the same direction. No grave goods were found with this burial.

**Osteological Analysis**

The bones are in excellent condition. The skeleton is fairly complete, although missing most bones of the feet and ankles, and some bones from both wrists. The robust bones, narrow pubic arch and sciatic notch of the pelvis, large femoral head diameter, and the presence of a large ossified thyroid cartilage indicate a male. The obliteration of endocranial sutures, ossification of cartilage on sternal rib ends, degenerative joint disease present in the vertebral column, dental status, and the pubic symphysis indicate an age of 45 to 50 years. Cranial shape is long ovoid,97 within the mesocrany (medium) range,98 with slightly bulging occipital, sloping low forehead, pronounced glabella (area above the nose), very narrow face, straight narrow nose, square eye orbits, large mastoids, and broad square chin (Fig. 62). Stature is estimated at about 176.23 cm (5’8”) on the basis of the lengths of the femur and tibia, using the regression formula developed by Trotter and Gleser.99

The teeth are large with heavy wear to the secondary dentin. The upper incisors have been reduced to root stubs with well-worn and polished surfaces, and the left lower canine and first premolar show wear slanting downward toward the back teeth, indicating that these teeth were used as tools. Some calculus was present on the lower teeth, and periodontal disease is represented by moderate alveolar bone resorption. Small interproximal and neck caries existed in three upper and three lower teeth, along with an abscess associated with the upper right lateral incisor (missing). All three upper left molars, the second premolar, and the right first and second molars had been lost long before death. This man had endured physical violence to his face and upper chest with a depression fracture, approximately 7 × 23 mm, along the brow ridge above the right eye (Fig. 62), and injury where the right clavicle articulates with the manubrium. Both injuries had healed, but the clavicle was displaced behind its articulation with the manubrium.

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Osteoarthritis in the neck and back, along with evidence of repetitive overuse of the shoulders from rotating the upper arms inward and out and lowering them while flexing the forearms with hands clenched, indicates that this man was accustomed to heavy work using his upper body and arms. Poirier's wear facets on the femoral necks, greater on the left side, indicate repetitive extension of the hip joints with knees flexed. There are some unusual lytic lesions at the base of the third and fourth metatarsals, the etiology of which is unknown. Developmental variants include inferior transitional facets on the eleventh thoracic vertebra resulting from the border between the thoracic and lumbar vertebrae shifting upward during development. The transitional facets generally appear on the last thoracic, the twelfth, interfacing with the differently shaped facets of the first lumbar vertebra.

Signs of lung infection are apparent with thread-like linear lesions with raised borders indicative of inflamed blood vessels on the inner surfaces of the left and right eighth and ninth ribs, and the left tenth rib. This infection was most likely the cause of his death.

**Grave 1992-2**

Grave 1992-2 extended westward along the interior north wall of the narthex from its northeast corner, but it did not lie directly against the walls (Fig. 26, above). It encompassed a space ranging 2.03 m westward from the north side of doorway in the narthex's east wall and 1.05 m south of the north wall. Three cut limestone blocks—measuring 0.79, 0.63, and 0.58 m long and each 0.15 m thick—stand upright to form the southern side of the vault. The tops of these stones rose about 0.20 m above the narthex floor. The west end wall consisted of two cut limestone blocks also standing upright. A roughly built wall of unshaped limestone blocks, built inside the north and east walls of the narthex but separate from them, forms the vault's north side and its east end. Large limestone slabs, resting on top of both side walls, covered the vault.

A second, lower layer of grave covering rested on a shelf built inside the bounding walls of the vault. This second covering layer consisted of a
rectangular blue Karystian marble slab resting horizontally above the skulls, a triangular limestone slab set against the east edge of the marble slab above the torso, and wooden planking, approximately 6 cm thick, over the lower torso and legs (Fig. 63). The limestone slab rested on smaller stones apparently designed to support it. White plaster lined the lower interior of this grave vault. The tops of both inner shelves and several lumps of this plaster found around the body displayed wooden plank impressions with the grain aligned east–west (paralleling the body axis), indicating that wood formed about half the lower grave cover. The interior space for this grave measured 1.68 m east–west by 0.37–0.50 m north–south, with the widest portion in the middle. No grave floor was noticed. The grave had been filled with "minuscule pebbles and sandy soil," about 0.02 m thick, beneath which was loose loamy soil. Pieces of white plaster (several with wood plank impressions), medieval ceramic sherds (49, Fig. 36), animal bones, a thick iron ring (probably not for finger wear), three iron nails, several fragments of lamp glass, and twelve small pieces of wood—further suggesting a wooden cover—were recovered from the fill. The grave was apparently dug and constructed from the floor level of the narthex that lay ca. 0.20 m below the top of the grave walls. Its upper covering was easily visible to people who entered the narthex.

Grave 1992-2 contained the fairly complete skeletal remains of three separate individuals: one woman (1992-2a) and two men (1992-2b and c). The woman had been interred last, and the bones of the two men had been pushed to the south (right) side of the grave and redeposited on top of her lower legs and feet (Fig. 64). She (1992-2a) lay fully extended on her back with her head at the west end of the grave facing upward. There was no sign of a chin prop or of side head props unless the stacked two skulls of the males to the right of her head were intended as such. Her forearms were folded across her stomach, the left forearm at a right angle to her spine, and the right forearm bent to place the right hand over her pelvis. Her legs were fully extended with the knees slightly separated. Both male skulls had been stacked on top of one another next to the right side of the woman's skull. The top one (1992-2b) rested right side up and facing east on top of the other (1992-2c), which lay upside down. Many additional adult bones lay along the right side and on top of the articulated woman's burial, especially in a low stack over her lower legs and feet.
Objects directly associated with the bodies in the grave include three complete iron spikes plus the tip of a fourth and three iron nails (66, Fig. 47). The longest spike—0.194 m long—was found between the lower left ribs of the articulated woman with its tip at the spine. The other two spikes—0.173 and 0.176 m long, respectively—lay in the northeast corner of the grave and outside the woman’s right thigh. The three nails—0.062, 0.068, and 0.088 m long—encircled her left leg and feet. There was no evidence that these iron spikes penetrated the woman’s body, or either of the other bodies. They apparently were arranged around the body of the woman.

A Venetian toresello minted under Antonio Venier (1382–1400) appeared beneath the rib cage of the articulated woman’s skeleton (see Appendix 1). It could also have originally rested on the body and fallen through during decomposition. In either event, the final interment of the woman most probably postdates 1382.

As noted above, the arrangement of skeletal remains in the grave indicates that the woman (1992-2a) had been placed in the grave last, with the bones of the earlier male occupants pushed to one side and deposited partially over her legs and feet. Multiple interment in this manner was a common practice in the Byzantine and Frankish periods at Corinth and other sites.103 As each new body was added, the bones of the previous inhabitant(s) were redeposited on and around the newest addition. The practice of reinterment continues in nearby modern-day Pyli, as well as in other areas in Greece. The associated iron spikes and nails could also have been redeposited with the bones of the earlier grave occupants, especially since they cluster around the legs. The coin, however, seems to relate specifically to the latest burial.

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103. The material from Corinth is being prepared by A. Rohn for a chapter to appear in a monograph by E. Barnes in the Corinthiseries. For a comparable phenomenon of collective burial in Polystylon (Abdera), see Agelarakis 1997, pp. 294–295.
Osteological Analysis

1992-2a. The last person placed in this grave was determined to be an adult female on the basis of gracile bones and the wide pubic arch and sciatic notch of the pelvis. Age was estimated between 40 and 45 years, based on moderate degenerative joint disease of the spine, dental status, and pubic symphysis. All bones of the skeleton are present and are in excellent condition. The cranium is a broad pentagonoid shape (Fig. 65),104 within the brachycranial range,105 with bulging occipital, slightly pronounced glabella, slight post-bregmatic depression behind the coronal suture, vertical forehead, medium face, squarish eye orbits (Fig. 66), wide straight nose, prominent chin with bony protuberance, and medium pointed mastoids (Fig. 67). Stature is estimated around 159.83 cm (5'3"), based on the lengths of the femur and tibia.106 Some teeth were lost after burial. Most of the remaining teeth are heavily worn to the secondary dentin, and there is a wide space between the upper and lower central incisors. Several interproximal and neck caries exist on upper and lower teeth, with total destruction of the upper right second molar and abscesses associated with three upper molars and one lower molar. Severe alveolar bone resorption from periodontal disease and tooth loss is evident, along with some calculus buildup. The upper left canine, second premolar, and lower first molars were lost before death, and the lower central incisors were about to be lost at the time of death.

104. Rogers 1984, p. 75.
A large old, healed circular fracture is visible on the right side of the skull, accompanied by a depression fracture above and behind it, and an old healed fracture of the nose. Osteoarthritis in the neck and mid- and lower back indicates bending and loading stress on the spine. In addition, this individual habitually overused her shoulders with the raising of her arms, rotating them inward, down, and back with her elbows flexed at right angles. She also overused the thumb and fingers of her right hand, which may have resulted from spinning. She was accustomed to prolonged standing with her upper thighs rotated and knees extended and she also had developmental asymmetrical torsion (uneven angles) of the femoral necks of the upper legs.

1992-2. Most of the skeleton of the second adult male placed in the grave is present and in good condition. Parts of the neck and back are missing, along with some hand bones and a few foot bones. The thyroid cartilage ossified and was found with the skull. Sex was determined by robust bones and the narrow pubic arch and sciatic notch of the pelvis. Age was estimated between 45 and 50 years, based on dental status, degenerative joint disease in the spine, endocranial suture closure, and pubic symphysis. The cranium is long and ovoid (Fig. 65), within the dolichocranzy (long-headed) range, with moderately bulging occipital, moderately pronounced glabella and brow ridges, low forehead, narrow face, medium straight nose, very narrow eye orbits (Fig. 66), broad mastoids, broad chin, and flaring gonials of the mandible (Fig. 68). Fine pitting lesions exist on the brow ridges. A stature of approximately 170.35 cm (5'6") is estimated on the basis of the lengths of femur and tibia.

Most teeth are worn to secondary dentin, with wear slanting backward on lower canines (lower incisors missing). All of the upper molars and the lower right first and third molars were lost before death with severe alveolar bone resorption. This individual suffered from severe periodontal disease, some calculus buildup on lower front teeth, and a neck caries of the lower right molar. Healing was taking place from an extensive abscess associated with one of the lost molars. There is evidence of temporomandibular joint dysfunction on the right side of the lower jaw. Daily activities caused repetitive loading stress on the lower back, and overuse of

the shoulders while flexing the elbows at right angles. He also shows evidence of having had Osgood-Schlatter disorder below the right knee when young. This disorder is caused by overuse of the quadriceps muscles pulling on the patellar tendon during adolescence.

1992-2c: The first adult male placed in the grave was younger than the other two adults. Age was estimated between 30 and 40 years, based on dental status, open endocranial sutures, and lack of degenerative joint disease in the spine. Sex was determined by robust bones and a narrow pubic arch and sciatic notch of the pelvis. Most of the bones of the skeleton are present and in good condition, with damage to the right side of the cranium, left shoulder, vertebral column, and pelvis. Some hand bones and vertebrae are missing. The cranium is long and ovoid (Fig. 65), with bulging occipital, medium forehead, pronounced glabella and brow ridges, narrow face, fairly straight but asymmetrical narrow nose, squarish narrow orbits (Fig. 66), broad mastoids, and medium chin (Fig. 69). Stature was estimated at around 170.94 cm (5′6″), based on the lengths of the femur and tibia.

All upper teeth and lower lateral incisors were lost after burial. The lower central incisors were lost before death, and the remaining lower teeth show moderate wear with slight secondary dentin exposure. The lower canines show wear slanting back toward the mouth. This individual suffered from severe periodontal disease with some calculus buildup, and neck caries on second and third molars. Faint linear enamel hypoplasias on the left canine indicate metabolic disturbances during infancy at around 18 months, 24 months, and 34 months. The base of the first toe on the right foot has a healed fracture. There is evidence of repetitive overuse of the right shoulder, and both upper arms have well-developed muscle attachments. The right elbow shows signs of repetitive overuse flexion at a right angle, along with repetitive overuse raising the left forearm. Developmental asymmetrical torsion (uneven angles) of the femoral necks is present in the upper legs.

110. Rogers 1984, p. 75.
Grave 1991-5

Grave 1991-5 is a roughly rectangular stone-walled vault built against the exterior of the south wall of the church at its southeast corner. The exterior south wall of the church forms the north wall of the vault. The west and south walls were built of large rough stone blocks and some tile fragments set in concrete mortar, while the east wall and the east end of the south wall were accidentally removed with fallen rubble from the church. However, remnants of mortar still in place marked the original limits of the vault (Figs. 70, 71). The eastern two-thirds of the grave vault floor retained its original plastered surface that sloped downward from its center line toward the south wall. The interior dimensions of this grave vault, 1.58 m east–west by 0.50–0.57 m north–south, were large enough to hold an adult body, although only a very few adult bones occurred among the many skeletal remains found in it.

Several jumbles of immature bones were found inside this stone-walled vault. Some bones belonged to an older child (designated 1991-5b) and were concentrated along the south wall of the grave construction, away from the church wall, although some elements lay close to it. Two large pieces of skull were from this older child: the right parietal and occipital lay 0.08–0.10 m from the north wall and ca. 0.37 m from the west end, while the right frontal was 0.29 m from the west wall and 0.19 m from the south wall, atop the only large flat rock found in the grave that could have served as a head prop (Fig. 70).
A second cluster of bones representing portions of a younger child (designated 1991-5a) and an infant (1991-5c) was found among wall and roof rubble fallen from the church around the grave and possibly in the east end of the grave. Many elements from this cluster matched elements of both children found within the grave walls.

Photographs show several bones in apparent proper position relative to one another along and parallel to the south wall (Fig. 71). These bones suggest that the older child (1991-5b) originally lay on its back with its head to the west. Probably, this head had been propped up on a flat limestone slab. Its right leg and hip (ilium, femur, and fibula) lay extended toward the east. The cluster of bones belonging to the younger child (1991-5a), recovered from around the grave and in its eastern end, at one time may well have been stacked over the lower legs and feet of the older child. Many bones scattered among overlying and adjacent excavation units belong to the individuals recorded in this grave, indicating that there have been several episodes of disturbance over time. From what evidence survives, we can reconstruct the following events:

1. The grave was originally large enough to contain an adult, but it was first used for a subadult.
2. The younger child (1991-5a) was probably placed in the grave.
3. The older child (1991-5b) was interred on its back, and the displaced bones of the younger child (1991-5a) were then probably stacked above the older child's lower legs and feet. Portions of an infant (1991-5c) were also added to the grave fill.
4. The bones of the older child (1991-5b) appear to have been pushed to the south (right) side of the grave seemingly to make room for the interment of a new person. That interment, however, never took place.

In the top of the grave fill, the excavators recovered about a dozen glass fragments, including three rims and two loop handles (68, Fig. 49), that belonged to one or more glass lamps.

Osteological Analysis

1991-5a. The younger child is represented by the mandible, upper central incisors, some vertebrae, rib fragments, most of the lower limbs, and parts of the upper limbs. The cranium is missing. An age of six to seven years was determined by the dental development and the diaphyseal lengths of the long bones. The lower right deciduous first molar was affected by a distal interproximal caries. The right humerus shows signs of repetitive overuse in rotating and flexing the arm; this could not be determined for the left arm.

1991-5b. The older child is represented by parts of the cranium and mandible, several rib fragments, most of the vertebral column, parts of the upper limbs, the pelvis, and the upper legs. An age of nine to ten years was determined from dental development, with long bone diaphyseal lengths small for the dental age. The teeth are large, suggesting a male child, with
some calculus on the lower incisors. The upper lateral incisors are peg-shaped, and there are carabelli cusps on the upper permanent molars. The metopic suture that divides the frontal bone during infancy, and usually disappears by the age of three, remains in this individual. This child suffered a small oval depression fracture that had healed on the right side of the head on the parietal bone. The last lumbar vertebra of the lower spine shows a stress fracture that separated the neural arch from the vertebral body, facilitated by the asymmetrical development of the neural arch and failure of the neural arch to fuse. This is known as a unilateral (left) spondylolysis (Fig. 72). Repetitive overuse from lifting heavy loads is represented by deep lytic lesions for the sternoclavicular ligaments on both clavicles, greater on the right side, smaller lesions for pectoralis major on the right humerus (left unknown), and deep lytic lesions on both radial tuberosities (Fig. 73). The biceps muscles insert here, and the deep lesions indicate repetitive overuse in hyperflexing the elbows with palms of the hands upward, as with carrying heavy loads. The distal dorsal aspect of both femurs shows shallow lesions of unknown etiology.

1991-5c. Only a few bones and fragments represent this individual, including the right eye orbit, right scapula, a vertebral fragment, and the left ilium. The size and fibrous nature of the bones indicate a newborn infant.
Simple Pit Graves

Grave 1992-3

The body of an adult male had apparently been laid to rest in a simple pit (grave 1992-3) dug into the rocky earth outside the north side of the church. This grave’s fill consisted of softer soil than the surrounding matrix. There was no evidence for a grave lining or covering. The individual was extended on his back with his head toward the west and propped up on a stone almost vertically to face his feet (Fig. 74). There was no sign of a chin prop. His forearms were folded across his torso with the right forearm angled toward the upper pelvis and the right hand lying on the left hip. The left forearm lay at a right angle to the spine with the left elbow flaring slightly from the axis of the torso and resting on top of a small stone (probably fortuitous since the ground contained many such stones). The left hand lay on the lower right rib cage. The legs of this man lay fully extended toward the east with both knees and ankles about 0.10–0.15 m apart. The feet pointed slightly toward one another. Disarticulated human bones not belonging to the articulated burial in this grave were recovered from the grave fill and above it. They represent five other individuals, none of whom appear to have been intentionally interred within this grave. They most likely indicate disturbances from other nearby graves.

Osteological Analysis

Most of the skeleton is present and in good condition, but the skull was damaged somewhat. Male sex was determined on the basis of robust bones, large ossified thyroid cartilage, and the narrow pubic arch and sciatic notch
An age of 30 to 35 years was estimated by dental wear, absence of degenerative joint disease in the spine, and pubic symphysis. The cranial shape is broad pentagonoid, within the brachycranial range, with rounded occipital, medium forehead, slightly pronounced glabella, wide face, square orbits, medium nose, small square chin, and large pointed mastoids. Stature was estimated at approximately 175.00 cm (5'8"), based on lengths of the femur and tibia.

The upper central incisors were separated by a large space, not unlike the female in grave 1992-2 inside the narthex. Dental wear is moderate with some secondary dentin exposure on most teeth, except for the third molars that showed less wear. While the upper front teeth show even wear, the bottom front teeth show wear slanted toward the back. Slight periodontal disease occurred around the upper molars and premolars along with moderate calculus, while the upper left central incisor was lost before death. There is evidence of repetitive overuse of the shoulders, greater on the right side, from rotating and lifting the arms overhead with forearms flexed and rotated, wrists extended, and right thumb flexed. Both calcanei of the feet have fine pitting lesions lateral to the talar articulation where the talocalcaneal ligaments attach on the outer side of the feet. The left femur shaft is broken, and the exposed inner bony canal is abnormally filled with trabecular bone, obliterating the inner medullary canal, while the outer cortex bone is unusually thin. Developmental variants include posterior bridging on the atlas vertebra in the neck (complete left, incomplete right) and a facet for an extra rib on the left side of the first lumbar vertebra (right unknown). Ribs generally do not appear on this vertebra, unless the border separating the last thoracic and first lumbar vertebrae shifts downward during development. There is fusion of the last two bones of the left fifth toe (right unknown). Death was caused by a fatal skull fracture to the top of the head on the left parietal, leaving radiating fracture lines behind (Fig. 76).

113. Rogers 1984, p. 75.
Miscellaneous human bones from the fill of grave 1992-3 (SU 408) include the following:

1. Child's skull fragments; hand bones; vertebral fragment; shafts of femurs, tibiae, and fibula of legs; and left ilium of pelvis. Age unknown
2. Adult female gracile fourth metacarpal from right hand, and a few teeth
3. Newborn infant fibrous fragments of skull, ulna of right forearm, and tibia of lower legs
4. Infant four to six months of age represented by left temporal from cranium, humerus of right arm, and fragments of ribs, ulna, femur, and tibia. Age estimated on diaphyseal length of humerus

Other miscellaneous human bones, from above grave 1992-3 (SU 406) and all from another adult male, include parietal fragments from a skull, a large robust patella from the right knee, left foot bones, and a fibula fragment from the lower leg.

**Grave 1992-4**

Burial 1992-4a lay in a simple earthen pit cut through rocky, rubble-rich soil east of the church. The pit was just large enough to contain the body, measuring 1.62 m east–west by 0.50 m north–south by about 0.40 m deep. The grave fill was “softer and looser” than the surrounding matrix. A roughly square limestone slab measuring ca. 40 cm on a side covered the head and upper chest (Fig. 77). It rested on a ring of stones surrounding the head on the north, west, and south sides. The individual lay extended on its back with its head to the west and slightly propped up (on earth?) to face eastward. The forearms were folded across the torso with the left forearm at nearly a right angle to the spine and with the left hand resting above the crest of the right pelvis. The right forearm angled toward the center of the left upper arm with the right hand resting on the left rib cage. The legs extended straight with both knees and ankles no closer than about 0.10–0.15 m apart. The pelvis has shifted somewhat, probably from ground pressure. The articulated body measured about 1.40 m east–west by about 0.40 m north–south at the elbows. Some additional human bones, including skull parts, that were found in the grave fill may represent additional human bones added to the grave or they may come from another adjacent burial. Portions of another skull (1992-4b) were encountered at the south side of the grave.

**Osteological Analysis**

1992-4a. Most of the skeleton is represented in fair to good condition. Male sex was determined by robust bones and the narrow pubic arch and sciatic notch of the pelvis. An age of 40 to 45 years was estimated by dental status, endocranial suture obliteration, presence of some degenerative joint disease in the spine, rib ends, and pubic symphysis. The cranial shape
is broad sphenoid within the brachycranary range, with slightly bulging occipital, vertical forehead, pronounced glabella, medium-sized straight nose, square eye orbits, medium chin, flaring mandibular gonials, and broad mastoids. An approximate stature of 162.73 cm (5’4”) was estimated on the basis of the length of the femur.

A large space occurs between the upper central incisors, similar to that of the female in grave 1992-2 in the narthex, and the male in grave 1992-3 on the north side of the church (Fig. 78). The upper right molars are missing. The upper left molars and the lower right second and third molars were lost due to periodontal disease not long before death. Most of the remaining teeth are heavily worn to the secondary dentin, and the upper central incisors are worn smooth to the roots from being used as tools. There is a large abscess associated with the upper right canine and left lateral incisor, and calculus is present on all teeth. Patches of periosteal plaque and striations from irritation can be seen on both tibiae, and severe periostitis on both fibulae of the lower legs. Periosteal plaque is also present on the distal dorsal aspect of the right femur. The neck and back show some loading stress. There is evidence of repetitive rotation overuse of both upper arms and forearms, with elbows flexed at right angles. The right forearm rotated the palm of the hand upward, while both thumbs show hyperextension facets at interphalangeal and metacarpophalangeal joints, and osteoarthritis is present on the distal phalanges of the third and fifth fingers of the right hand. This shows that the individual habitually overextended his thumbs backward with force, with overuse of the finger-tips of the third and fifth fingers. The left leg shows signs of overuse extending the knee, and both calcanei show bony spicules from overuse of the Achilles tendons.

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117. Rogers 1984, p. 75.
Developmental variants include mild upward shifting of the border between the cervical and thoracic vertebrae during development, with a unilateral right blunt, bony extension of the transverse process of the last cervical vertebra—an attempt at forming an extra rib. The first lumbar vertebra has rib facets indicating extra ribs with the border between the thoracic and lumbar vertebrae shifting downward during development, while the border between the lumbar and sacrum shifted upward, causing the right side of the last lumbar to become part of the sacrum.  

1992-4b. Skull fragments found at the south side of the grave most likely belong to an adult female, based on the small size and gracileness of the skeletal material. The left parietal was reconstructed, and a portion of the right parietal is present, along with the left temporal, left zygomatic with attached left maxilla containing the incisors with only mild wear, and a portion of the base of the skull. The first cervical vertebra, the atlas, was incorporated into the base of the skull, resulting from downward shifting of the border between the cervical vertebrae and the base of the skull during development. There is also a matching fragment of the second cervical vertebra.

Pit Graves Outside the Church Partially Dug or Exposed

While excavating a 1 × 2 m test trench (J11-6) during the 1991 field season, the excavators encountered portions of several burials. Even though they did not excavate the burials in their entirety, we can infer that at least five burials are still in the ground adjacent to the test trench (Fig. 79). A glazed pitcher was found among the graves and may have been related to the burials (51, Fig. 34).

Grave 1991-1

The skull of an infant was encountered projecting from the north scarp of the test trench along with several bones of the right shoulder and upper torso. Even though the excavators discerned no grave outline, it probably had been a simple pit in the earth. Two rocks, or one slab broken in two, lay above the face and torso. This infant lay about 0.40–0.60 m below ground surface, but it was probably not buried so deeply originally. The infant apparently had been buried lying on its back with its head to the west and propped up ca. 70 degrees from horizontal, probably on earth. Its head and right shoulder appear (from photographs) to be resting on rocks. An adult atlas lay alongside the right temporal.

Osteological Analysis

The infant’s skull is fairly intact (Figs. 80, 81), missing the base occipital. The right arm is represented by the scapula, clavicle, humerus, and radius. There are a few rib fragments, neural arches of all but the last cervical vertebrae, and fragments of a few hand bones. The metopic suture is in place, and a small anterior fontanelle. An age of 12 to 14 months was

120. Barnes 1994, pp. 103, 112.
estimated by dental development and diaphyseal lengths of long bones. Very fine pitting lesions in the roofs of both eye orbits indicate anemia resulting from systemic infection. This baby shows overuse of the right shoulder and arm (unknown for left arm). The bones are robust, with a bony ridge for the conoid ligament and extended bony shelf for the deltoid on the clavicle, fine pitting for pectoralis major and subscapularis on the humerus, and for the biceps on the radius.

**GRAVE 1991-2**

The distal condyles of the lower ends of two adult femora from the upper legs in excellent condition were seen projecting from the north scarp of the excavation unit near its northeast corner. They were not removed. The apparent position of these two bones might suggest a possible bundle burial.
Grave 1991-3a

The distal half of a femur from the left upper leg articulated to its left lower leg and heel and an associated right foot (burial 1991-3a) were exposed against the south scarp. Once again, the excavators could discern no grave outline, but it was probably a simple pit. The bones lay 0.50–0.60 m below ground surface. Visible leg bones suggest the body lay on its back with legs extended and feet pointing toward the east.

Osteological Analysis

The tibia, fibula, and patella of the left leg, calcanei from both feet, and most of the bones of the right foot (minus most of the toe bones) of an adult were removed. The bones are of moderate size, with a male stature estimate of 168.56 cm (5'6") based on the tibia length. There is an old healed fracture of a proximal phalange of a toe on the right foot. Male sex is indicated by the presence of bony spicules on the patella from the left knee from strain on extensor muscles, and bony spicules on the heel of the calcaneus from stress on the Achilles tendon. Both are frequently seen in adult males, and rarely present in adult females.

Grave 1991-3b

A second left foot found about 0.20 m east of the right foot of 1991-3a probably represents another individual (burial 1991-3b) buried beneath 1991-3a. The rest of both of these burials can be assumed to still lie in the ground south of this excavation unit.

Osteological Analysis

Most of the bones of an adult left foot and proximal phalanges from the first and third toes of the right foot were recovered. The left calcaneus and talus are missing. The bones are small and gracile, indicating a female. Fusion of the last two bones is present on the fifth toe. There is a small kneeling facet on the first metatarsal, and the proximal phalange from the left first toe exhibits erosive lesions on the articular base.

Grave 1991-4

In the northwest corner of the excavation unit, most of the left foot and a few bones of the right foot belonging to an adult were found beneath a flat limestone slab that extended back into the north and west scarps. No grave outline could be determined, but it was probably a simple pit covered by at least one large limestone slab. The remainder of the burial still lies in the ground.

Osteological Analysis

Right and left talus, most of the bones of the left foot, and a few phalanges from the right foot, including the first distal phalange, were recorded. The bones are small and gracile, indicating a female.
Osteological Summary

The sample size is too small to project any demographic interpretations (Table 1). The sample does, however, represent a mixed population, based on the presence of primarily two different skull shapes, ovoid long and broad shapes. It is interesting to note that only males with ovoid long skulls were buried in the church, while only males with broader skulls were found outside the church. The only female, buried in the church narthex with two males, also has a broad skull similar to the skull shapes of the males buried outside the church (Figs. 65, 66). The female and males with broad skulls also share a similar genetic trait, a wide space between the upper front teeth. Further excavations of the cemetery would help determine if this is a pattern.

Evidence for injury was present on three of the six adult skulls and on one child’s skull. The blow to the head of the male from grave 1992-3 on the north side of the church was fatal. The frequency of blows to the head appears to be rather high, even within this small sample. Dental disease was common, affecting five out of six adults, and one child. The infant 1991-1 shows signs of anemia caused by infection, and periosteal infection was present on the lower legs of the male from grave 1992-4 east of the church. The male from grave 1992-1 in the narthex shows signs that he died from a lung infection.

Signs of functional stress resulting from repetitive overuse of muscles and joints with habitual activities related to daily life were present on all of the complete adult skeletons, the two children from grave 1991-5, and even the toddler from grave 1991-1. The arms and shoulders were affected the most, primarily by activities related to heavy lifting, pulling, or activities that required the elbows to be repetitively flexed at a right angle. The adult male from grave 1992-1 in the narthex and the adult male from grave 1992-4 east of the church show signs of having used their upper front teeth as tools. The even, smooth wear, highly polished to the root stubs, suggests that they were using their upper front teeth to soften leather or some other material by passing it repeatedly across these teeth, while the lower teeth held it in place.

Asymmetrical torsion of the femoral necks is an uncommon developmental trait. The necks of the femurs, just below where they articulate with the pelvic bones, usually angle at the same degree. The angles in some individuals are unequal, but do not cause any pathology. The adult female (1992-2a) and the first male (1992-2c) buried in the same grave within the narthex share this trait, despite differences in skull shape. Two of the adult males buried outside the church (1992-3 and 1992-4a) share a similar developmental trait. Both have lumbar rib expressions on the first lumbar vertebra, resulting from shifting of the border between the lumbar and thoracic vertebrae during development. The border shifted downward, forcing the nearest lumbar vertebra to take on the characteristics of the overlying thoracic, resulting in extra ribs projecting from the lumbar vertebra.

The unilateral spondylolysis, separation of the left side of the neural arch from the last lumbar vertebra, of the child from grave 1991-5b is
<table>
<thead>
<tr>
<th>Grave/Burial</th>
<th>Location</th>
<th>Condition</th>
<th>Sex/Age</th>
<th>Cranial Shape</th>
<th>Stature</th>
</tr>
</thead>
<tbody>
<tr>
<td>1991-1</td>
<td>SE of church</td>
<td>incomplete</td>
<td>infant 12–14 mos</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1991-3a</td>
<td>S of church</td>
<td>incomplete</td>
<td>male adult</td>
<td>—</td>
<td>168.56 cm (5'6&quot;)</td>
</tr>
<tr>
<td>1991-3b</td>
<td>S of church</td>
<td>incomplete</td>
<td>female adult</td>
<td>—</td>
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<tr>
<td>1991-4</td>
<td>S of church</td>
<td>incomplete</td>
<td>female adult</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>1991-5a</td>
<td>SE stone vault</td>
<td>partial</td>
<td>child 6–7 yrs</td>
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<tr>
<td>1991-5b</td>
<td>SE stone vault</td>
<td>partial</td>
<td>child 9–10 yrs</td>
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</tr>
<tr>
<td>1991-5c</td>
<td>SE stone vault</td>
<td>fragments</td>
<td>infant newborn</td>
<td></td>
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<tr>
<td>1992-1</td>
<td>narthex</td>
<td>complete</td>
<td>male 45–50 yrs</td>
<td>ovoid long</td>
<td>176.23 cm (5'8&quot;)</td>
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<td>mesocrany</td>
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<td>1992-2a</td>
<td>narthex</td>
<td>complete</td>
<td>female 40–45 yrs</td>
<td>broad pentagonoid</td>
<td>159.83 cm (5'3&quot;)</td>
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<td>brachyocrany</td>
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<td>complete</td>
<td>male 45–50 yrs</td>
<td>ovoid long</td>
<td>170.35 cm (5'6&quot;)</td>
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<td>male 30–40 yrs</td>
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</tr>
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<td>male 30–35 yrs</td>
<td>broad pentagonoid</td>
<td>175.00 cm (5'8&quot;)</td>
</tr>
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<td></td>
<td>brachyocrany</td>
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</tr>
<tr>
<td>1992-4a</td>
<td>E of church</td>
<td>complete</td>
<td>male 40–45 yrs</td>
<td>broad sphenoid</td>
<td>162.73 cm (5'4&quot;)</td>
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<td>1992-4b</td>
<td>E of church</td>
<td>fragments</td>
<td>female adult</td>
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<tr>
<td>SU 20-22</td>
<td>E of church</td>
<td>fragments</td>
<td>adult</td>
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<td>SU 92 and 101</td>
<td>E of church, around grave 92-4</td>
<td>partial</td>
<td>infant newborn</td>
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<td></td>
</tr>
<tr>
<td>isolate 2</td>
<td>S of church door, under ceramic</td>
<td>a) fragments</td>
<td>adult</td>
<td></td>
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<tr>
<td>SU 101 and 102</td>
<td>vessel</td>
<td>b) fragments</td>
<td>child 7–8 yrs</td>
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<tr>
<td>SU 110</td>
<td>adjacent to apse</td>
<td>a) fragments</td>
<td>infant 4–6 mos</td>
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<td></td>
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<td>b) fragments</td>
<td>female adult</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>c) fragments</td>
<td>male adult</td>
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<tr>
<td>SU 115</td>
<td>SE of church</td>
<td>a) fragments</td>
<td>female adult</td>
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<tr>
<td></td>
<td></td>
<td>b) fragments</td>
<td>child</td>
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<td>c) fragments</td>
<td>infant newborn</td>
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<td>S of narthex</td>
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<td>female adult</td>
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<td>b) fragments</td>
<td>adolescent</td>
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<tr>
<td>SU 307–310</td>
<td>fill and floor in narthex</td>
<td>a) fragments</td>
<td>adult</td>
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<td>b) fragments</td>
<td>child</td>
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<tr>
<td>SU 309 and 311</td>
<td>above grave 92-2 in narthex</td>
<td>fragments</td>
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<tr>
<td>SU 406</td>
<td>above grave 92-3 N of church</td>
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<td>male adult</td>
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<tr>
<td>SU 408</td>
<td>in grave 92-3 N of church</td>
<td>a) fragments</td>
<td>female adult</td>
<td></td>
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<td></td>
<td></td>
<td>b) fragments</td>
<td>child</td>
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<td>c) fragments</td>
<td>infant 4–6 mos</td>
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<td>d) fragments</td>
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<td>SU 409</td>
<td>NW of church, W of grave 92-3</td>
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<td>b) fragments</td>
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<td>west of narthex</td>
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<td>adult</td>
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<td>b) fragments</td>
<td>child</td>
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</table>
rare. This is a stress fracture caused by uneven development of the neural arch and failure of the two halves of the neural arch to fuse during development. There are two similar cases, both on the left side, in an adult male and another child at medieval Corinth, dating to the same time period as this cemetery. Genetic linkage between the examined individuals is suggested.

Two individuals, a male (1992-3) and a female (1991-3b), have fused bones in the fifth toe, known as symphalangism. This trait appears in medieval cemeteries at Corinth and may be more widespread.

Reconstruction of Funerary Behavior

Although the sample is quite small, several interpretations can be drawn. Comparisons with Frankish and later burials at Corinth and elsewhere demonstrate that funerary practices at medieval Panakton were part of a broad cultural pattern, but also included minor variations that may reflect local custom. The funerary practices are as follows:

Preparation of the grave. Two kinds of graves were identified in the medieval levels at Panakton. Stone-lined vaults were found within the church narthex and against the church exterior wall. These vaults must usually have been built ahead of time since their construction would have required time, the gathering of materials, and labor. This could account for the apparent misfit in grave 1991-5, located on the south exterior of the church. In the case of grave 1992-1 in the narthex, the vault lining was constructed after interment. Grave 1992-2 had even been coated on the interior with white plaster. A simple, shallow pit sunk into the earth sufficed for those buried outside the church. Such graves could be easily prepared within the short time preceding interment (bodies were not embalmed). All of the infants in our sample came from such a context. If the grave had been previously used for burial, the bones of the former occupants were removed or pushed aside to make room for the newly deceased. This practice was followed in graves 1992-2 and 1991-5, both stone-lined vaults. It may also be possible that an adult grave demolished a grave used previously for an infant. In that case, some of the bones of the infant would be found in the adult’s grave fill. Grave 1992-3 may be an example of this phenomenon.

Preparation of the body. While we have no means of recovering hard evidence, ethnographic studies of funeral practices in rural Greece describe the processes of washing and dressing the body.\(^{122}\) The head, arms, and legs would have to be positioned before the onset of rigor mortis, within two to four hours after death.\(^{123}\) Apparently, mortuary garb at medieval Panakton did not include personal jewelry.\(^{124}\) There were no signs that coffins were used at this site; the deceased may have been encased in cloth shrouds that deteriorated with the passage of time. At Panakton, the heads were usually set in a propped position (four of five cases); grave 1992-2a provided the lone exception. Although arms were generally folded across the lower torso, there was considerable variation in the placement of forearms and hands. The legs were extended in a straight line with the spine; in only one case (1992-1) were the knees and ankles close enough to suggest that the ankles may have been bound.

124. It is possible, although it cannot be proven, that the silver ring found on the narthex floor (55) may have been associated with one of the burials in that space.
Interment. In keeping with contemporary practices in the region, some sort of graveside ritual took place at Panakton. Containers for blessing substances were left behind at the grave. As the body was placed in grave 1992-3, the head was propped up on a stone “pillow.” A similar, but unconfmed, case may have existed in grave 1991-5. In graves 1991-1, 1992-1, and 1992-4, earth was used to bolster the heads to face east. No attempts were made to straighten the heads between side props and there were no traces of nonperishable objects placed beneath the chins. The grave was then filled with the previously excavated earth, containing whatever lost or discarded items may have been present and contaminating the fill. Stone slabs covered portions of graves 1991-1, 1991-4, 1992-1, 1992-2, and 1992-4. In four instances, the slabs lay above the heads and upper torsos. We can only note the slab over the feet of the individual in grave 1991-4. There was no use of tile coverings or linings in these graves, and grave accompaniments were rare. Grave 1992-2 contained the iron spikes and nails (66), plus other iron objects in the fill. The one coin found in grave 1992-2a may seem to reflect an intentional act of inclusion.

Post-interment commemoration. The grave vaults inside the narthex projected slightly above floor level; they would have been easily noticed by anyone entering the chamber. No other recognizable grave markers were observed during fieldwork. However, a thoroughly smashed incised yellow and green glazed bowl (49, Fig. 36) lay scattered over the narthex floor and in the fill of grave 1992-2. This smashed vessel is reminiscent of four contemporary funerals that we observed in Corinth in 1997 and 1999 when new plates were broken in the home the day following the funeral to break the pattern of death in the family; the pieces were subsequently thrown over the top of the grave. Fragments of thin clear glass typical of lamps were plentiful in the fill of the narthex and within the upper fill of all three stone-lined graves. Among these fragments were several loop handles, nipple bases, and body sherds displaying appliqued ropes of glass on the exterior. Such plentiful finds suggest that votive lamps were burned over the specially built graves following burial.

From the five complete graves and portions of others observed, we can recognize some twenty individuals (see Table 1). At least seven other known graves, inside the church and outside it to the south and east, await full excavation in the future.

SUMMARY OF CERAMIC FINDS

The ceramic vessels excavated at Panakton provide a full picture of the range of wares available to the residents of a small, agrarian settlement. Individual vessels have been presented above, together with other finds from the houses. Wherever possible, we have provided parallels from other sites. The majority of the vessels, however, do not compare closely to ceramic finds from well-established sites such as Corinth. The lack of parallels may be explained in two ways: the absence of a complete pottery typology for the mid-14th to 15th century and the high percentage of unglazed, common wares. Most of the pottery catalogued in this study

125. Inv. no. 1992-384.
derives from securely dated contexts on site; a few fragments have been added when their unusual decoration or shape suggested their presentation for further study.

Ceramic wares include fine and plain ware bowls, cooking pots, everyday storage vessels, and pithoi. In general, the vessels were found in good condition, with sharp breaks and many joins. With few exceptions, the fabrics are consistent in firing and color; the majority fall within a small range of reddish-yellows on the Munsell chart (5YR 6/6–7/8 and 7.5YR 6/6–7/6). The repertoire of shapes is limited; many of the excavated shapes (e.g., 6, 10, 30) are paralleled at other late medieval sites surveyed in the Skourta Plain, such as the Pyli tower, suggesting that these sites drew on the same regional workshop. Green glaze applied to the unslipped Panakton fabric on both open and closed shapes produces a thick, mottled greenish-brown surface (5, 34, 51). Fine wares of local fabric are uniformly decorated with a simple spiral design (3, 44, 46) and coarse pots are occasionally marked by a punched or combed design (35, 38). Roof tiles, found in abundance on site, and floor tiles, recovered in the church, display a limited number of designs on their upper surfaces (21, 22, 40), suggesting a single workshop for the manufacture of these large wares.

The closest comparisons to the Panakton vessels are from rescue excavations and surveys in Thebes and its hinterland. A glazed bowl from the church (42) is most closely compared to a bowl excavated in the city. A series of large, thick-walled “mixing bowls” found in several of the houses at Panakton (5, 27) resemble sherds from vessels found in survey of the Valley of the Muses, to the west of Thebes, as does a highly decorated storage jar lid (35). The closest parallel for the pithos (19) is a slightly smaller vessel found in excavations of a small, late medieval settlement at Akraiphnion. Cooking pot rims at Panakton do not generally match the series of profiles found at late medieval Corinth or the Athenian Agora, and point toward another source for utilitarian wares.

Only a few vessels have substantially different fabrics and surface treatment and may constitute imports from outside the region. These include several brown-glazed bowls with dark red fabric (2, 4, 43) that were found in House I and in the church; two vessels found in the church, a plate and jug with green-and-yellow and green-and-brown glaze decoration (45, 50); and a glazed plate with a complicated incised design (49), some sherds of which were included in grave 1992-2. Close parallels for the shapes and surface treatments of these vessels can be found at Corinth.

The proportional distribution of functional wares (fine, cooking, coarse) is uniform in the houses excavated across the site. Pottery from the church presents a different picture. A comparison of the ceramics found in the north room of House I to those found in the narthex of the church suggests how the proportional distribution of specific wares may vary according to context. The storage room and the narthex are nearly identical in size but are functionally distinct. The pottery found in House I represents the abandonment debris of the north room and suggests the range and number of vessels that a single family might have used in everyday cooking and storage. Relatively few of the vessels found in the north room were

126. Relatively little of the late medieval pottery from Thebes has been published. Its eventual study will influence the analysis of vessel types from Panakton.


TABLE 2. SHERDS FROM WARES FOUND IN STRATIFIED LEVELS

<table>
<thead>
<tr>
<th>Context</th>
<th>Glazed Wares</th>
<th>Cooking Wares</th>
<th>Coarse Wares</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>House I</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SU 129</td>
<td>9 (4%)</td>
<td>10 (5%)</td>
<td>184 (91%)</td>
<td>203</td>
</tr>
<tr>
<td>SU 131</td>
<td>12 (2%)</td>
<td>253 (39%)</td>
<td>384 (59%)</td>
<td>649</td>
</tr>
<tr>
<td>SU 133</td>
<td>8 (4%)</td>
<td>208 (96%)</td>
<td>—</td>
<td>216</td>
</tr>
<tr>
<td>SU 137</td>
<td>1 (3%)</td>
<td>31 (86%)</td>
<td>4 (11%)</td>
<td>36</td>
</tr>
<tr>
<td>Narthex</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SU 308</td>
<td>25 (14%)</td>
<td>—</td>
<td>152 (86%)</td>
<td>177</td>
</tr>
<tr>
<td>SU 310</td>
<td>78 (21%)</td>
<td>55 (15%)</td>
<td>234 (64%)</td>
<td>367</td>
</tr>
</tbody>
</table>

glazed. The pottery excavated in the church narthex has a different character. A much higher percentage of the finds were glazed and fewer cooking wares were found.

A comparison of numbers of sherds found in stratified levels in House I and the church narthex is revealing (Table 2). The sample is small but it establishes a clear pattern. The proportion of fine to coarse wares reflects the different uses of the structures in which they were found.\(^{130}\) The high number of glazed vessels in the church might suggest that bowls and plates were given for ceremonial use or were employed in a wide variety of liturgical and extra-liturgical rituals. This is the case, for example, for the glazed bowl decorated with an incised, abstract floral pattern (49), pieces of which were found in two locations: resting on the floor of the narthex and below the cover slab of grave 1992-2. Glazed bowls found in the church and its narthex may have been used to drink, pour, or transport holy water, to anoint the deceased, to contain oil, to hold items used in the performance of the eucharistic service, or to store wine. A large number of coarse wares were also found in the church, and their presence, in a religious structure, needs to be explained. Even in modern churches of the Greek countryside, a large number of vessels are found, ranging from plastic bottles holding oil and water, to bowls holding incense, to storage jars holding candles.\(^{131}\) These containers—in various fabrics—supplement the proper liturgical vessels, generally metal, used in ritual performance.

The Panakton ceramics demonstrate the range of wares that were available in a peasant settlement. The small number of imports suggests that limited resources were available for securing finely made and decorated vessels, either through payment or barter. That glazed wares were available on site tells us that the presence of glaze is not necessarily associated with luxury. What may be viewed as an economic index is the simple decoration of the Panakton fine wares. The majority of glazed bowls, as mentioned above, are decorated with incised patterns consisting of a spiral executed in a sloppy manner. The most elaborately decorated vessel, the sgraffito bowl (49) associated with the narthex tomb, may have been obtained for special use in the burial rite.

In summary, the ceramics excavated at Panakton served the needs of a small community with limited resources. Statistical analysis demonstrates that these resources, when available, were invested in imported wares that

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\(^{130}\) For a similar observation, based on pottery from the Australian Paliochora-Kythera Archaeological Survey, see Caraher, Gregory, and Pettigrew 2001.

\(^{131}\) Personal observation.
were given over to the service of the church. These fine wares supplemented a small number of ceremonial metal objects, primarily bronze, that were also employed in church ritual (55–62). The domestic wares from the site comprise a uniform assemblage. This common pottery was produced in the region, most likely in the area of Thebes, suggesting close economic ties with that center.

**HISTORICAL SUMMARY**

Two years of excavation at Panakton have uncovered buildings, both domestic and ecclesiastic, of a medieval village built within the walls of a Classical citadel. The numismatic evidence, as well as ceramics and small finds, suggests that this village was inhabited for not more than a hundred years, from the middle of the 14th to the early 15th century. There are no traces of earlier medieval occupation on the site; stray Byzantine coins, one of them pierced for suspension, appear to have been keepsakes. There are also no traces of occupation on the site at any time later than the early 15th century. The history of medieval Panakton therefore belongs to the period of the Catalan (1311–1388) and Florentine (1388–1458) control of the Duchy of Athens and Thebes. The exact circumstances that spurred the construction and abandonment of medieval Panakton are as yet unknown, however, as are its medieval name and the precise identity of its residents.

It is possible that preexisting settlements in the Skourta Plain contributed to the population that settled at Panakton. Survey has identified three medieval village sites in the Skourta Plain: Loukisia (near Prasino), Ayios Nikolaos (near Skourta), and Ayios Georgios (near Skourta) with substantial remains from the 12th and 13th centuries. Fragments of Byzantine architectural sculpture with stylistic affiliations to carving from the nearby monastery of H. Meletios have been identified at Loukisia. Architectural fragments carved in the same style (71–75) were found in excavation of the Panakton church; most of these have been dated, on stylistic grounds, to the 12th century. It is likely that the Panakton fragments represent spolia derived from one or more buildings in the plain. It seems possible that villagers from the plain moved up to the mountaintop at some point in the mid-14th century, taking fragments of sculpture with them for the construction of their new church.

The location of the Skourta Plain midway between Athens and Thebes made it unlikely that villagers living in this agricultural basin would have remained unaffected by the political vicissitudes of the 14th and early 15th centuries. Coins found on site, associated with the Byzantine Empire, the princes of Achaia, the dukes of Athens, and Venice, demonstrate the many powers that vied for economic and political control of the region. Panakton was the most substantial site in the area of the Skourta Plain at this time, and its history must have been shaped by its place in the geography of events. Three general considerations drawn from the history of the region in this period may inform our interpretation of the remains we have uncovered at Panakton: the effects of warfare; the agricultural basis of the village economy; and the makeup of the population.
Warfare frequently disrupted life in the countryside during this period, a fact that explains the preeminently defensive character of the settlement at Panakton. Its location, almost equidistant from Athens, Megara, and Thebes, may well have been a factor in the establishment of a stronghold at Panakton. The years during which habitation at Panakton is most securely attested by the numismatic evidence, the 1360s through the second decade of the 1400s, were particularly turbulent for the Duchy of Athens and Thebes, and more than once Panakton was likely to have been affected by this turbulence. Internal rivalries within the Catalan duchy led to fighting in Boeotia in 1362–1365, in the course of which a Turkish force was briefly introduced to Thebes by one of the Catalan factions.132 A decade later, in 1374, the ambitious Florentine lord of Corinth, Nerio Acciaiuoli, found the opportunity to expand his territory at the expense of the Catalans by seizing Megara.133 Panakton thus found itself on the border between Catalan and Florentine territories. At the same time the castle of Sykaminon, near Oropos, belonged to the Knights of St. John,134 a circumstance that rendered the route across the Skourta Plain practically the only connection between Catalan-held Athens and Thebes that passed through friendly territory. In 1379 the Catalans lost Thebes to a company of Navarrese mercenaries, who also laid siege to Athens.135 Whatever their connection to these events, the inhabitants of Panakton surely witnessed the passage of hostile armies.

In 1388 Nerio Acciaiuoli captured the Acropolis of Athens from the Catalans after a siege of three years, and the Catalan Duchy of Athens and Thebes ceased to exist.136 But the first decade of Florentine rule was no less turbulent than the last decades of the Catalans. Between 1392 and 1397, Turkish forces entered Boeotia and Attica several times, and laid siege to the Acropolis of Athens before being driven off by a Venetian force.137 Athens itself passed into the hands of the Venetians, while Thebes remained a possession of Antonio Acciaiuoli, son of Nerio. In 1402, Antonio invaded Attica from his stronghold in Thebes, and by 1405 he had gained recognition as the Duke of Athens.138 Antonio’s diplomatic skills brought comparative peace to his dominions thereafter, until his death in 1435.139

It is tempting to speculate that the towered stronghold and settlement at Panakton were maintained over the span of this troubled half-century precisely because Panakton was situated midway between the more important centers of Western occupation at Thebes, Megara, Athens, Sykaminon, and Negroponte. The discovery of socketed iron projectile points of the type associated with crossbow bolts (or “quarrels,” see Fig. 82) in seven squares of the site140 indicates that preparations for warfare were never far from everyday concerns.141 A stronghold on this site could not prevent the passage of hostile armies, but, together with the towered site above Pyli (Fig. 4), it could provide an outpost to keep watch against the movements of enemies, and to give refuge to a local population.

Although the protective function guaranteed by the commanding vista cannot be denied, a tower such as that at Panakton (Fig. 3) could serve multiple purposes; the tall structure erected over an agricultural village might also have functioned as a territory or identity marker.142 Agriculture was certainly important to the life of this community, if we may generalize from the evidence of a plowshare and an equine shoe found among the
utensils and vessels in House I. A community of the size suggested by the remains we have identified (perhaps thirty families) must have been actively engaged in the production of its own foodstuffs, and engaged, therefore, in farming on the slopes of Panakton itself, as was practiced in early modern times, and in portions of the Skourta Plain below. Seasonal ponds drained by sinkholes rendered the central portion of the Skourta Plain unusable for farming but good for grazing, and animal husbandry was likely to have been as important to the late medieval inhabitants of Panakton as it has been to the early modern population of the plain (see Appendix 2).

Despite, or perhaps even because of, the periodic disruptions of war, the various Western powers controlling this part of Greece endeavored to strengthen the economic foundation of their regimes by fostering agricultural utilization of the countryside. It is clear, moreover, that the establishment of agricultural settlements was encouraged for the dual purposes of providing a taxable base and a population that could contribute men and horses for warfare. In some cases, overlords living in the region’s cities administered rural properties in the surrounding countryside. Such was the case, for example, of Arnau Sabater, originally from Barcelona, whose will, filed in Thebes on December 28, 1336, lists four “casali,” as yet unidentified in the region, and the names of the Greek “villanos” who cultivated the lands. In close proximity to Thebes and laboring below the shadow of the crowning tower, the villagers at Panakton may have worked the land for foreign overlords.

The settlement at Panakton typifies the measures taken to support defensive and agricultural objectives during the period of Western rule. The analysis of the skeletal remains from excavated graves in and around the church provides unambiguous evidence of a hard-working population. In addition to the stress placed on all members of the community by agricultural and construction work, traumas experienced by some of the adult males are likely to have been the result of warfare. The senior male who was buried in one of the tombs within the narthex, grave 1992-1, received and recovered from blows to his face and upper chest during his lifetime. The male buried outside the church in grave 1992-3 died from a blow to the top of his head.

Perhaps the most intriguing question affecting our understanding of medieval Panakton is the question of the identity of its inhabitants. Although we cannot, at present, identify the origins of the peoples whose remains we have excavated, the distinctions in skull shapes indicate that the males buried in the built tombs in the narthex of the church represent one kinship group that was intermarried with a female representative of
another kinship group, a group that is also represented among the males buried outside the church. Tax inventories produced in this period for comparable sites in the Peloponnesos demonstrate that small villages were inhabited by extended families. The church decoration and furnishings demonstrate that this population was Orthodox. The relationship of the inhabitants of Panakton to broader demographic patterns of late medieval Greece can be suggested on the basis of the evidence of the institutions and historical practices attested within the late medieval period in the Duchy of Athens and Thebes, as well as tax registers from the Ottoman period.

The most distinctive feature regarding the institutional status of this community is its attachment to a towered stronghold. Scholars view these towers as characteristic of settlement patterns established under Western authority in this part of Greece. In Attica and Boeotia at this time such towers have been identified as features of land tenure officially recognized as the exclusive right of those who enjoyed Catalan citizenship, or "enfranchisement."

Documentary evidence clearly attests that land tenure was among the exclusive rights of "enfranchisement" within the Catalan dominions in Greece, and that in some instances families of Greek serfs were included among the property held by those who enjoyed the rights of "enfranchisement." Of particular interest for the example of Panakton, however, are cases where such rights are specifically extended to Greeks living under Catalan rule. Greeks are attested holding such offices as castellan (commander of a fortress) in the County of Salona (Amphissa), and notary (secretary of state) at Levadia and Athens under the Catalans. These and other leading Greek men and women (often the wives of Westerners) were given full rights of property ownership and inheritance under Western-influenced law codes, reflecting at the highest levels of society a progressive breakdown of barriers between Latin and Greek that very likely was proceeding similarly among the less eminent members of that society.

By the time that formal elements of Western rule of Greece came to an end, by the mid-15th century, the occupation of the stronghold at Panakton was also over. The fallen tile roofs of Panakton’s medieval houses bear witness to the site’s abandonment in the first half of the 15th century and the subsequent decay of its structures. A century later, beginning in 1521, Turkish registers include the village of Derveno Salesi (Pylis). By 1642, the village is listed as a derbend, a settlement that formed a source of revenue for the provincial administration and the military. Such villages were generally populated by Christians, many of them Albanian. It is tempting to speculate that the villagers of late medieval Panakton had moved down to the plain and contributed to the establishment of the villages that have survived until today, but we cannot exclude the possibility that the villagers left the mountains for more welcoming areas. Present-day residents of Prasino recall the names of the churches on the hill but there is no local name for the abandoned settlement; it is simply to kastro, referring specifically to the tower. The late medieval settlement brought to light in our excavations is thus a mute witness to the dislocations and amalgamations of peoples that took place in difficult and violent times.

150. Setton ([1948] 1975, p. 166) cites documents attesting that the enfranchised Greek Demetrios Rendi received a royal "grant that carried with it, in addition to dwellings, fields, vineyards, and farm lands, two families of Greek serfs."
151. The Greeks Dimitri and Mitro were castellans at Salona at the time of the Navarrese invasion; Setton [1948] 1975, pp. 114, 137–138. Constantine Mavro-Nichola and his son Nicholas served as notaries at Livadia, and Demetrios Rendi and Nicholas Macri served as notaries at Athens under both Catalan and Florentine rule; Setton [1948] 1975, pp. 138, 161, 166–170, 252–254. For these settlements, see Rubin y Lluch 1910.
152. For a discussion of the Ottoman registers, see Appendix 2; and Kiel 1997, 1999.
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Excavations were supervised by Martha Taylor, Lee Ann Turner, and Richard Westall. Susanne Hofstra, Elizabeth Langridge, Maria Hidiroglou, and Despoina Tsiafakis assisted in the recording of finds. Soultana Valamoti studied botanical remains. Yiannis Hamilakis studied faunal remains. Helen Alten served as conservator. John Dean and Ellen Burchenal served as photographers. John H. Kroll was consulted on the identification of coins excavated in 1991. Stavros Papamarinopoulos conducted remote sensing on the site. The site grid was established by Carl Lipo. David G. Romano surveyed the site in 1986 and created a preliminary topographical map. Student and volunteer excavators were Matthew Bandy, Jason Bass, Peter Blitz, Fotini Bourdala, Lisa Butler, Michael Casey, Bianet Castellanos, Bryan Cooperrider, Jennifer Corbin, Alison Deal, Panayota Dini, Daphne Edwards, Maria Fotias, Ioulia Gavrilidou, Brit Johnson, Eliza Kartaki, Jules Keane, Haley King, Klea Koff, Lambrini Koustoukas, Katia Kubicek, Tebb Kusserow, Benedict Lanaras, Heather Lind, Victoria Nevius, Laura Nicholas, Scott Ortman, Silvia Rodriguez, Linda Rosenberg, Robert Rosenberg, Michaela Sanchez, Pauline Sanchez, Mark Seielstad, Spiros Sideridis, Thalia Sini, Karen Smelkinson, Amy Sweigert, Christina Traitoraki, Amy Welch, Eleni Zimi, and Anastasios Zompolas. Theodore Chenoweth provided organizational support.

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APPENDIX 1
MEDIEVAL COINS

Eighteen medieval coins were recovered at Panakton in 1991 and 1992, nine of which are illustrated here (Fig. 83). Of these, the majority are Venetian coins minted for circulation in the region.\(^{154}\) Unusual among the finds is a follis of Tiberius II, which was found during the excavation of House I. There are no indications that the site was inhabited in the Early Byzantine period; the coin must have been a keepsake for the residents of this house. The coins are listed below by findspot. All of the medieval coins found in test trenches were recovered in surface levels.

Coins were found at the following locations:

House I
- 1991-16: SU 5
- 1992-197: SU 123
- 1992-329: SU 132
- 1992-409: SU 132

House II
- 1992-84: SU 201

House IV
- 1992-219: L11, SU 107

Church
- 1991-439: nave, SU 210
- 1992-55: west exterior, SU 503
- 1992-172: narthex, SU 306
- 1992-199: narthex, SU 308
- 1992-200: narthex, SU 308
- 1992-251: north exterior, SU 406
- 1992-384: narthex tomb, SU 312

Test Trenches
- 1991-148: H9-6, SU 2
- 1991-199: J11, SU 9
- 1991-419: J11, SU 110
- 1991-420: J11, SU 110

\(^{154}\) For a discussion of Venetian coinage in medieval Greece, see Stahl 1985.
BYZANTINE COINAGE (4)\(^{155}\)

Tiberius II, A.D. 574–582 (Constantinople mint)
1992-409  Bust of emperor with mappa  \(DOC I, 270, I a; \) Fig. 83
A.D. 579  M ANNO L, \(\circ\) r.

Anonymous Follis, Class A2, A.D. 976–1030/1035? (Constantinople mint)
1991-419  O: Bust of Christ  \(DOC III, 2, pp. 649–675, \)
R: Four-line inscription  pls. XLVIII–LV
Hole pierced through coin

FRANKISH COINAGE (4)

Princes of Achaia

Philip of Tarentum, A.D. 1307–1313 (Clarenza mint)
1992-84  +PHS PA CH TAR DR Cross/
Den.  +D' CLARENCIA Castle Tournois
Coin damaged on one side  Metcalf 1971, p. 184  Fig. 83

Uncertain Ruler of Achaia
1991-16  cross pattée
Den.  + (DE) CLARENCIA Castle Tournois

Dukes of Athens

William or Guy II de la Roche, A.D. 1280–1308 (Thebes mint)
1992-219  +G DUX AT En ES
AR Obole  Large fleur-de-lis/
+ThE BE CIVIS Genoese gate
Hole pierced through coin  Metcalf 1983, pp. 68–69  Fig. 83

Uncertain Duke of Athens (possibly Thebes mint)
1992-172  Illegible
Den.

VENETIAN COINAGE (10)

Francesco Dandolo, A.D. 1329–1339
1992-197  Doge kneeling/Lion rampant  Papadopoli 1893, p. 163, no. 10
AR

Andrea Dandolo, A.D. 1343–1354
1992-200  Doge kneeling/Lion rampant  Papadopoli 1893, p. 182, no. 5
AR

Marco Corner, A.D. 1365–1368
1991-148  Cross/Lion of San Marco  Papadopoli 1893, p. 204, no. 5
Bi (Tornesello)

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\(^{155}\) This number includes two illegible Byzantine bronze coins found in surface levels adjacent to the church (inv. 1991–199, 420).
Figure 83. Coins. Scale 1:1

Andrea Contarini, A.D. 1368–1382
1992-55      Cross/Lion of San Marco
1992-108     Bi (Tornesello)
              Papadopoli 1893, p. 217, no. 7
              Fig. 83

Antonio Venier, A.D. 1382–1400
1992-329     Cross/Lion of San Marco
1992-384     Bi (Tornesello)
1991-439     Papadopoli 1893, p. 231, no. 7
              Fig. 83

Michele Steno, A.D. 1400–1413
1992-251     Cross/Lion of San Marco
1992-199     Bi (Tornesello)
              Papadopoli 1893, p. 240, no. 7
              Fig. 83
APPENDIX 2
POPULATION AND PRODUCTION ACCORDING TO OTTOMAN TAX RECORDS

The Ottoman population and taxation registers of Boeotia provide important information about the villages in the Skourta Plain. Skourta appears in the poll tax registers in the first half of the 17th century. In 1642, the village had 25 households, in 1687 only 16, showing the demographic decline of the 17th century. Kako Niskiri, Kavasala, and Krora are not mentioned in any of the sources and evidently did not exist at this time, at least not under these names.

Three villages in the tax registers have the name Salesi: Salesi-i Kebir (or Buzurg, “Great”), Derveno Salesi, and Salesi-i Sagir. The first of these villages to be listed, Salesi-i Kebir, is referred to as Albanian, and was, judging by the many people with “Salesi” as a patronym, a clan village. Derveno Salesi (modern Pyli) was a new village, to judge by its status as part of the estates of the Sultan (Hass-i Humayun). Settlements that were founded by the Ottomans when they first registered the region were usually assigned to serve as a source of revenue for the provincial administrators and the military. Newly established villages were often made Hass of the Sultan because the military had a fixed income and the central administration wanted to prevent changes. Because of its location by a pass leading from the Skourta Plain toward the Asopus valley, Derveno Salesi was made a derbend between 1570 and 1642.

During the crisis of the 17th century, Derveno Salesi fared well due to its privileged status. Its population declined during the demographic crisis of this century, but Derveno Salesi fared better than “Great” Salesi, whereas the “Small” Salesi disappeared altogether (Table 3).

Sixteenth-century tax registers provide some information about land use in Early Ottoman Derveno Salesi (Table 4). These figures may shed light on the types of crops that were grown at Panakton one to two centuries earlier, during the late medieval period.

The local measure was the Istife himl, or load of Thebes, which equaled 167 kg. In 1540, the price per himl of wheat was 30 akçe; the price of barley was 16 akçe. In 1540, 55 akçe equaled one Venetian gold ducat; in 1570, 60 akçe. Sheep were taxed at 1 akçe per two sheep, honey at 1 akçe per hive, and cotton at 5 akçe per bale (“teker”) of about 5 kg. According to the registers, there was no wine production in the village. In 1570, the

price of a load (himl) of wheat was 46 akçe, barley 25 akçe. Two sheep were taxed at 1 akçe as in 1540, but the price of sheep had gone up from 22 akçe per sheep to 28 akçe. The noticeable amount of inflation is the result of a growing population that increased the demand for foodstuffs.

Honey and pigs are more difficult to assess. Honey was priced at 6 to 12 akçe per okka (1.286 kg). Each hive may have produced 8 to 12 kg of honey per year. A pig fattened at home was taxed at 1 akçe per head per year and 1 akçe for two pigs running free in the woods but guarded and owned by individual peasants. In both cases it was not possible for the census commission to determine exact numbers since beehives and free-ranging pigs are easy to hide. The numbers thus reflect a deal or an estimate.

In the mid-16th century an imam of a mosque would have earned 3 to 5 akçe per day, a good workman (carpenter, mason, etc.) 6 to 8 akçe per day. Many soldiers of the garrisons in the castles had to manage with 3 or 4 akçe per day. With these numbers in mind we can work out total values and production trends, remembering that for items such as cereals and cotton, 13% of the total harvest was taken, not more. In 1540, per household, 1,724 kg of wheat, 777 kg of barley, and 3.8 bales of cotton are indicated. The 1570 register lists 1,758 kg of wheat, 946 kg of barley, and 5 bales of cotton per household. Between 1540 and 1570 the amount of cereals available for the average household had thus grown from 2,501 to 2,704 kg. The number of sheep had doubled (a general trend in Boeotia), and the number of pigs and hives had tripled. An average family in Derveno

### TABLE 3. DEMOGRAPHICS FOR THREE VILLAGES (NUMBERS OF HOUSEHOLDS)

<table>
<thead>
<tr>
<th>Year</th>
<th>Derveno Salesi</th>
<th>Salesi-i Kebir</th>
<th>Salesi-i Sagir</th>
</tr>
</thead>
<tbody>
<tr>
<td>1466</td>
<td>—</td>
<td>3</td>
<td>—</td>
</tr>
<tr>
<td>1506</td>
<td>—</td>
<td>34</td>
<td>—</td>
</tr>
<tr>
<td>1521</td>
<td>30</td>
<td>62</td>
<td>10</td>
</tr>
<tr>
<td>1540</td>
<td>38</td>
<td>31</td>
<td>11</td>
</tr>
<tr>
<td>1570</td>
<td>38</td>
<td>50</td>
<td>20</td>
</tr>
<tr>
<td>1642</td>
<td>70 (derbend)</td>
<td>32</td>
<td>—</td>
</tr>
<tr>
<td>1646</td>
<td>57 (derbend)</td>
<td>28</td>
<td>—</td>
</tr>
<tr>
<td>1687</td>
<td>51 (derbend)</td>
<td>28</td>
<td>—</td>
</tr>
</tbody>
</table>

### TABLE 4. ENTRIES FROM TAX REGISTERS FROM DERVENO SALESI

<table>
<thead>
<tr>
<th>Year</th>
<th>Households (n)</th>
<th>Bachelors (n)</th>
<th>Widows (n)</th>
<th>Tax (akçe)</th>
<th>Wheat (load)</th>
<th>Barley (load)</th>
<th>Sheep (akçe)</th>
<th>Pigs (akçe)</th>
<th>Honey (hives)</th>
<th>Cotton (bales)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1540 <em>Register</em></td>
<td>38</td>
<td>14</td>
<td>3</td>
<td>4,732</td>
<td>51</td>
<td>28</td>
<td>572</td>
<td>25</td>
<td>51</td>
<td>19</td>
</tr>
<tr>
<td>1570 <strong>Register</strong></td>
<td>38</td>
<td>5</td>
<td>3</td>
<td>6,200</td>
<td>52</td>
<td>28</td>
<td>1,200</td>
<td>68</td>
<td>150</td>
<td>25</td>
</tr>
</tbody>
</table>


Salesi had 15 sheep in 1540 and 31 in 1570 (nomad families could survive with 50–60 sheep per household). The amount of cereals is more than sufficient (a family of five needs 1,000 kg per year to eat). A fifth of the harvest was needed for seed, and an eighth to pay the tax. This is the minimum vital worked out by a number of scholars. The production figures are as follows: 200 kg of cereals per person per year, 60 kg for seed, and 37 kg for tax, for a total of 297 kg per person per year. With their many sheep and increased honey and textile production, the peasants of Derveno Salesi were well off in the 16th century and could weather the storm of the 17th, when population declined, prices collapsed, and taxes rose, and could survive well into the period of the modern Greek state.

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