## FRANKISH CORINTH: 1996

(PLATES 1-17)

HE AMERICAN SCHOOL OF CLASSICAL STUDIES AT ATHENS continued its excavation directly south of the Archaeological Museum of Ancient Corinth during the 1996 season. The School also investigated Roman levels for the second consecutive year in newly purchased building lots southeast of the Roman forum of Ancient Corinth.<sup>1</sup>

The purpose of the 1996 campaign within Frankish levels south of the archaeological site museum of Ancient Corinth was largely to complete the investigation of the 13th- and 14th-century monuments uncovered there and to clarify problematic details in anticipation of their final publication.

Probes were made within the portico that runs the length of the east side of Unit 1 (Pls. 1, 3). The results made possible a tentative reconstruction of the façade of that unit (Fig. 3). The northwest corner of the garden of Unit 1 was cleared to levels of the mid 13th century. Here was found a deep pit with an octagonal foundation around its mouth, an installation that appears for a very short time to have been a refuse pit for garbage

<sup>1</sup> I am grateful to the Greek Archaeological Service and to its director, Ioannis Tsedakis, for continuing permission to excavate in Ancient Corinth. I owe thanks, as well, to the Ephoreia of the Corinthia and Argolid, to its ephor, Dr. Phani Pachiyianni, and to the Byzantine Ephoreia of Patras for their help over the years.

It also is my pleasure to congratulate the Corinth excavation staff for the energy and enthusiasm which it expended in its day to day work throughout the year. Primary thanks for this go to Dr. Nancy Bookidis, Mr. Aristomenes Arberores, Dr. Orestes Zervos, and Miss Stella Bouzaki. In addition, I warmly thank Messrs. Nikolas Didaskalou, Anastasios Papaioannou, and George Arberores for the care and repair of excavation objects, Mr. Athanasios Notes for his work as assistant foreman, and Misses Ino Ioannidou and Lenio Bartzioti for attending so well to the photographic needs of the excavation.

Ms. Camilla MacKay, Ms. Wendy Costerman, and Mr. Brian Burns supervised the excavation of levels of the 12th and 13th century southeast of Temple E. Investigation of the vestiges of a Roman house and Late Roman bath southeast of the Corinthian forum was under the general direction of Dr. Guy D. R. Sanders, with Mr. Joseph Rife focusing on the Roman residence there. Dr. Sanders will present a separate report of work accomplished southeast of the forum.

Dr. Ethne Barnes has made substantial progress in her analysis of the anthropological remains recovered from Frankish Unit 2; this year she studied over 80 burials. Dr. Arthur Rohn was in charge of the excavation of the human remains excavated in room 4 of Unit 2, aided by Mr. Dimitrios Notes. Dr. Lynn Snyder studied the fauna recovered from the various closed deposits excavated in the 1996 season.

A team from the University of Pennsylvania Museum of Archaeology and Anthropology, directed by Dr. David Romano, continued the project of entering on computer information gathered from aerial and ground surveys, as well as from the excavated remains in and around Ancient Corinth. This material is being stored in a data base that will be available to future scholars interested in Corinthian subjects.

The present report has gained much in depth from the careful teamwork that has been the hallmark of the excavation this year. To everyone involved in the project I here extend both gratitude and thanks.

Not being able to purchase private land south of Frankish Unit 1 this past year unfortunately caused a slight change in the focus of the 1996 campaign. We hope, by the purchase of the land in the near future, that we will be able to define the southern limits of the open court east of Units 1 and 5 in 1997.

Hesperia 66.1, 1997

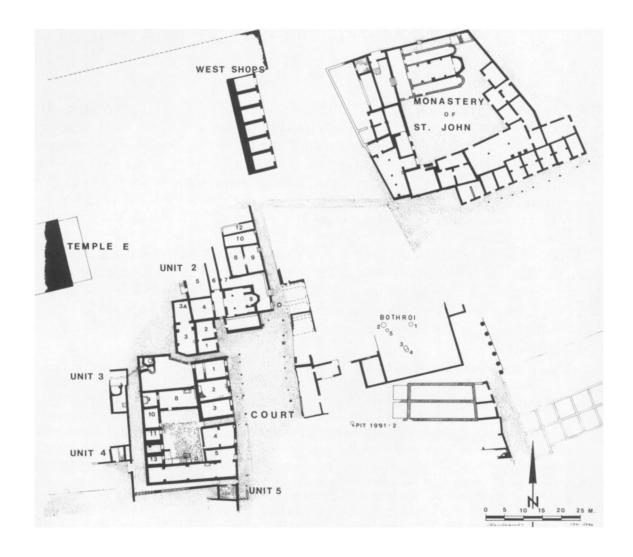


Fig. 1. General plan, west side of Frankish Corinth, southeast of Temple E

from a dining area, then a cesspit, and finally the receptacle for destruction debris from around A.D. 1312.

This year an effort was made to clear the southern portion of the tiled room in Unit 5. It is now clear that Building 5, which abuts the east end of the south exterior wall of Unit 1, was built later than both Unit 1 to its north and Unit 6 to its south. The building appears to have been purposefully constructed to control traffic that entered the public square from the west between Units 1 and 6.

Investigations along the north—south roadway that flanks the west side of Unit 1 were made to determine the extent of the occupation immediately west of that street and the use to which the land there was being put during the second half of the 13th century. Unit 3, opposite the northwest corner of Unit 1, appears to have been a large complex of

rooms, radically changing its function and plan over short periods of time. The south end of Unit 3 may, however, have been an independent room with a hearth (Pl. 14:c) and with a large storage bin or silo that served as its north wall (Pl. 14:a, background). Unit 4 lies west of the southwest corner of Unit 1 and appears to have been another single-roomed structure with hearth. If these two rooms, each furnished with a hearth, were independent houses, then either the sleeping areas were only undifferentiated parts of each hearth-room or the two rooms were constructed each with a loft over part or most of its ground floor.

Apparently no building was constructed within the space between Units 3 and 4 in the Frankish period. What had stood there in the 12th century was a Byzantine bath, but once that building collapsed the site was left abandoned; apparently, it was not built over in the Frankish period except at the south end. There the furnace room of the bath and the flanking chambers to its east and west were covered by Unit 4.

Farther west, where excavation was undertaken in 1986, 1987, and 1988, the stratigraphy attests to no Frankish occupation; the only activity here appears to have been the occasional dumping of garbage, the digging of pits to dispose of more of the same, and the burial of one adult (grave 1987-1). This male, interred alone in unconsecrated land, had his arms tied behind his back, and appears to have been thrust into a shallow pit with little conventional attention.

Excavation also was conducted within Unit 2. Here the focus was twofold. First, it was hoped that the plan of the Frankish extension north of the church would become clear with further investigation. Excavation between 7.50 m and 17.25 m north of the church has only shown that rooms in this area may not all have been part of a single complex dependent upon the church. It seems likely, rather, that the two northernmost exposed rooms, which face onto the north–south road that serves as the eastern limit of Unit 2, may well be independent shops. Secondly, excavation within area 4 of Unit 2 (room D of the Byzantine period that had abutted the west wall of the narthex of the church) shows that the Franks converted that space into a burial ground and over a rather short period, perhaps no more than sixty years, interred well over one hundred persons therein. The final count of burials is still to be made, however, since more work in the graveyard is needed. Completion of excavation of the graves within area 4 is anticipated by the end of the 1997 excavation season.

## UNIT 1

Unit 1 (Figs. 2, 3) is about 32.40 m in length if measured along its east façade southward to Unit 5. A corridor entrance near the center of the façade allowed access into a private court at the core of Unit 1. The façade north of the corridor was backed by three rooms, here numbered 1, 2, and 3, and south of the corridor by three other rooms, numbered 4, 5, and 6–7. Each room, possibly including room 6–7, had individual access through the façade wall from the graveled court east of the building. Inside, each room was designed with a door at the southeast corner. A colonnade ran the length of the east façade but

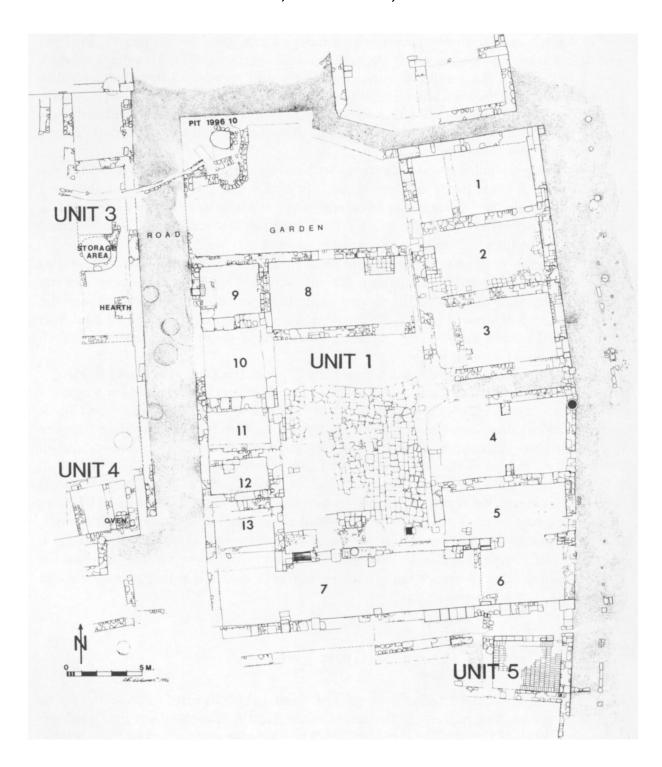


Fig. 2. Plan, Units 1 and 3-5, ca. A.D. 1300

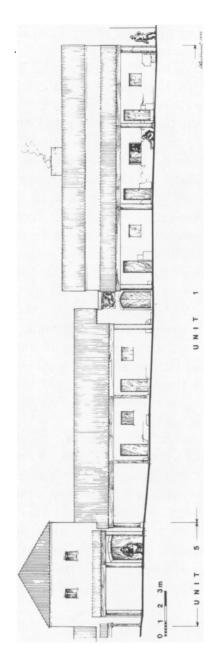


Fig. 3. Elevation, reconstructed east façade of Frankish Units 1 and 5

probably was interrupted for an interval of about 1.30 m where the corridor door pierced the façade.

In its original design Unit 1 was limited to the north side of an east—west roadway, the course of which was established at the foundation of the Roman colony.<sup>2</sup> Another building, here called Unit 6, flanks the street on its south side. It is separated from Unit 1 by 5.60 m at its east façade, but the passage tapers to ca. 4.20 m where the north wall of Unit 6 disappears into an unexcavated scarp.

Sometime around the end of the 13th century the Frankish builders erected a two-room structure, now called Unit 5, between Units 1 and 6 (Pls. 2, 3). The northern room is a corridor 1.62–1.44 m wide north–south. It apparently controlled traffic along the route, which had previously been free to both pedestrians and wheeled vehicles. The room south of the corridor, its floor carefully tiled, has an interior width of 3.48 m north–south and an interior length of 4.46 m east—west. The east wall is ca. 0.76 m thick and preserved to a maximum height of 0.88 m above the tile floor. The west wall has been robbed of most of its stones, but where preserved it is 0.69 m thick, about equal to the thickness of the south wall. The north wall, however, is narrower and is constructed differently, apparently because it was the party wall between the room and the corridor to its north. This wall is between 0.30 m and 0.34 m thick and is perforated by a doorway ca. 0.90 m wide, set 0.40 m west of the northeast corner of the room. The door itself was double leaved.

The southern room has a floor of carefully laid tiles, about 334 in number, mostly about 0.30–0.34 m long and 0.12–0.14 m wide (Pl. 3). At the time of excavation about 176 tiles, partial or whole, were discovered *in situ*. Originally, probably no more than two or three square tiles 0.30–0.32 m on a side were set in among the rectangular tiles of the ground floor. The tiles are laid in rows running north—south, except for a framing row in which the tiles were laid with their long axis at right angles to the wall, running around the room as a border.<sup>3</sup> In addition, the interior face of all four walls carried a coat of cement plaster with black stone aggregate.

In the course of excavation this year 444.2 kg of paving tiles were recovered from the debris over the tile floor, of which 228.4 kg of tiles were half-squares in form. Still more debris was found within the colonnade (Pl. 4). About 53 percent of the floor tiles are still in place; about 30–35 percent were apparently removed when a deep north—south post-Frankish trench was dug from a higher ground level through the Frankish destruction debris and down to the subflooring of the room. This trench started above Unit 5 and was dug northward through the whole of Unit 1. It is here assumed that most of, if not all, the square tiles found in the destruction debris, a total of ca. 215.8 kg by weight, had originally been part of the paving from a floor above. With the square tiles was a mixture of 259 kg of roof tiles.

In the collapsed debris of tiles, wall blocks, and elements of the colonnade east of Unit 5 was found one simple, long voussoir block. This should probably be restored to the lintel

<sup>&</sup>lt;sup>2</sup> For the original decumanus of the Roman colony, see Williams and Zervos 1987, pp. 1–3, pl. 1; Williams and Zervos 1988, pp. 95–99, pl. 33.

<sup>&</sup>lt;sup>3</sup> Rectangular tiles (e.g. MF-1996-3) usually measure about  $0.272 \times 0.11$  m and are 0.037 m thick. Such a tile weighs 1.57-2.00 kg. Square tiles (e.g. MF-1996-2),  $ca. 0.208 \times 0.209$  m, weigh 2.20 kg each.

over the gateway of Unit 5 itself (Fig. 3). The tile-floored room and the corridor together may well be the ground-floor remains of a mediaeval tower or gate building. Because of the amount of roof tiles found among the disturbed paving tiles, a tiled roof, not a flat fighting platform, has been restored to crown this tower (Fig. 3). The passageway, secured by a door at either end, was controlled by the room with the tiled floor and plastered walls. This room would have been quite suitable for a gatekeeper or guards. The floor above would have been accessible by means of a ladder.

That Unit 5 is a late addition to the line of buildings on the west side of the graveled court is suggested by a closer look at Unit 6. The north wall of Unit 6 is 0.69 m thick; its east wall is ca. 0.65 m thick, as compared to a thickness of 0.75 m for the east wall of Unit 5. The stones of the two walls of Unit 6 bond at the corner. The east façade wall of Unit 5, as we have seen, is ca. 0.76 m thick and does not bond with the north wall of Unit 6. Rather, a clear joint running east-west is preserved between the two. Not only does the lack of bonding at this corner suggest a lack of contemporaneity between the east-west wall of Unit 6 and the façade wall of Unit 5, but the southernmost bay of the stoa of Unit 1 ends at the south end of the façade of Unit 5, just north of the joint. The southernmost column of the colonnade has now been restored to its base just northeast of the joint. Here, a series of curb stones that should be associated with the stoa was laid in a line going northward from the column; apparently the stones were meant to keep water and wash from running onto the floor of the colonnade from the higher ground level of the square. Another line of curbing, three stones running between the façade wall and the reerected column, served the same purpose as the first curb, but it also defines the south end of the stoa. The colonnade of Unit 5 in no way extends into the open area east of Unit 6. The colonnade attached to the east façade of Unit 5 appears to have been designed as an addition to the colonnade of Unit 1 but definitely to have been considered distinct from Unit 6 south of it.

Rooms 1 through 3 and the corridor south of room 3 do not appear to have been part of the original design of Unit 1. Apparently these rooms were imposed upon the northeast corner of the original court complex. The three rooms are distinctive in their orientation, which follows the line of Unit 2 to the north rather than the orientation of the rest of the building, in their great width and heavy walls, and in a certain number of constructional details not found elsewhere in the unit.

## UNIT 1

THE COLONNADE OF UNIT 1 (Figs. 2, 3; Pls. 1, 2)

Excavation of the colonnade that ran along the east façade of Unit 1 was completed this year. The placement of all the colonnade columns is coordinated with the partition walls between the rooms of Unit 1, starting with the northernmost column, which is immediately east of the north exterior wall of the unit. A nonbonding pier built against the north end of the façade is preserved to a height of 0.75 m above the gravel surface of the court. This appears to be its original full height. The pier apparently supported a poros column shaft that now lies to its east. Together they would have supported the

timber beam that spanned the space from façade wall to the freestanding portico column. The position for the second column to the south is attested by a marble Ionic column base that is still in situ in the court gravel, on axis with the partition wall between rooms 1 and 2. Likewise, the base for column 3, another reused marble Ionic column base, is preserved immediately east of the party wall between rooms 2 and 3. The fourth column foundation, a marble Ionic capital laid upside down, is immediately east of the party wall that separates room 3 from the corridor to its south. In each case the intercolumniation is between 5.28 m and 5.30 m. The clear span from wall to column is ca. 3.20 m at the northernmost column; the interval contracts to ca. 2.85 m at the column immediately north of the corridor.

The southern colonnade of Unit 1 starts at the fifth column from the north end of the unit. Unfortunately, the exact position of its base is now fixed only by a pit completely robbed of stone, but the pit does exist where a foundation should be expected, about two meters south of the position of column 4. From this point southward the colonnade runs slightly more toward the southwest, following the change of angle in the façade wall. The type of column foundation also changes. This can be seen in the next two foundations to the south, which are built of coarsely squared poros blocks. The colonnade south of the corridor tapers to a width of ca. two meters at its southern end, where the final base is a marble Roman geison block. It is set into the gravel to support the southernmost column of the porch of Unit 1, which, to judge from the way the bearing surface of the geison is chipped, had a diameter of 0.34 m. The block is aligned with the axis of the south exterior wall of the unit. Separated by 0.15-0.19 m from the geison block is a smaller square base of poros; this base measures 0.32 m on a side and once supported the post or column for the north end of the porch in front of Unit 5. The west edge of the geison block is set 0.10 m east of the poros block immediately to its south. A break in the colonnade between Units 1 and 5 and a change in the height of the portico roof should be restored between these two closely set foundations.

The east façade of Unit 1 in front of rooms 4 through 6 is precisely aligned with the north end of the façade of Unit 6, where the latter is now exposed; where the façade of Unit 5 meets Unit 1 there appears to have been a setback of about 0.10 m. The façade wall of both units here is reduced to stones of the foundation, and a precise dimension for the setback at wall level is now impossible. Unit 5 closes the space between Units 1 and 6 and thus completes the line of buildings along the east side of the graveled square with a slight offset but no noticeable change of angle, even though the evidence presented by the column bases suggests restoration of an independent porch in front of Unit 5.

The remains exposed here raise a number of points that need to be addressed. First, the east colonnade and the façade of Unit 1 definitely were interrupted between rooms 3 and 4. It is quite probable that the corridor between rooms 3 and 4 was not roofed and that the portico was discontinuous east of the corridor for an interval about equal to the width of the corridor itself. Such a restoration seems preferable to that of a continuous façade with an entrance to the interior court of Unit 1 through a continuous, low porch. Second, the portico north of the corridor appears to have been an addition to the original design of the unit. The northern three bays were erected sometime after the construction of rooms 1, 2, and 3, for the eastern façade wall was plastered before the pilaster was

erected to support the roof structure of the north colonnade: original wall plaster is still preserved between the buttress and the wall. Plaster would not have been applied at this point if that buttress had been part of the original construction.

The southern porch, however, may have been part of the original design of Unit 1, with the two-bayed porch of Unit 5 added when Unit 5 was erected between Units 1 and 6, or slightly later.

Finally, post holes exist in the packed earth in a number of the intervals between the porch columns (Fig. 2), attesting to some sort of a wooden skeleton between the uprights. The function of the framework can only be surmised. The post holes are about 0.14–0.16 m in diameter; the posts appear to have been driven into the gravel at one time and left there. No evidence exists that they were erected for feast or market days and taken down when the feasting or marketing was over. In fact, the post holes line up with the interior and exterior faces of the wooden epistyle of the porches, and their upper ends may have been nailed or pegged into the sides of the epistyle. This wooden skeleton may have supported outside market tables or some everyday feature that was designed to be semipermanent.

Enough archaeological elements were found in the destruction debris of the porch to make possible a restoration of the colonnade on paper (Fig. 3). A marble column shaft, 2.04 m tall, was found where it had fallen at the third column position, counting from the north end of Unit 1. That column shaft has been reset and now stands upright on its base (Pl. 1, center). The base is a reused Ionic capital with its original bearing surface placed face upward and with its bolsters protruding from the gravel. The Frankish builders erected the shaft on it upside-down after chipping away the apophyge around the top of the shaft in order to make its larger diameter fit onto the smaller Ionic capital. The preserved column height of 2.04 m suggests that the epistyle rose to at least 2.04 m above the gravel of the square, or slightly higher if a capital is to be restored between shaft and epistyle. No capital is at present restored to the façade because no fallen element of that sort was recovered from the destruction debris during excavation in this part of the court.

The slope of the porch roof can be calculated from the remains of the pier at the north end of the façade and a poros column shaft that apparently had stood on it to support the transverse beam for the roof (see pp. 13–14 above). The pier is preserved to a height of 0.74 m above the gravel floor, and the poros shaft to a length of 2.435 m, together requiring a clearance under the roof beam at the façade wall of at least 3.175 m. One thus arrives at a height of 2.04 m at the front of the porch and a height of 3.175 m at the wall, putting the slope at the north end of the stoa at ca. 52.5 degrees.

## GARDEN OF UNIT 1

Excavation in 1996 also exposed other architectural details of Frankish Unit 1. The northwest corner of the garden was defined by a roadway running north—south on the west side of the unit, by a small graveled square on the north side, and by the unit itself on the east and south sides.<sup>4</sup> The area within these limits apparently served as a garden,

<sup>&</sup>lt;sup>4</sup> Williams and Zervos 1996, pp. 30-34, where the evidence for the chronological sequence is presented.

with pit 1996-10 in its northwest corner. Surrounding the mouth of the pit and built close to, but not abutting, the garden wall is a shallow, octagonal foundation, apparently built to support a building of not very substantial construction. A light octagonal structure should be restored as having covered the pit, at least for a part of its life. One interesting feature of this octagon is an oval protrusion on its south side. This appendage was of poor, light construction and appears to have had no other function than to serve as a retaining wall around a shallow pit, probably dug to receive a large shrub or small tree with a root ball ca. 0.55-0.70 m in diameter.

The second feature is a drain that originally emptied into pit 1996-10 from the west. The drain originated on the west side of the north-south roadway, crossed the street, and passed through the garden wall. When the west side of the garden was contracted, thereby allowing the north-south roadway to pass over what previously had been the northwest corner of the garden, the drain was separated from the pit. It was then reconstructed within the trench left after the stone foundations of the original west garden wall were dismantled; the drain continues northward within the trench and around the newly established northwest corner of the garden, ending within the open square north of Unit 1.

Pit 1996-10 is 3.35 m deep, and the shaft fill, when excavated, was composed of three distinct deposits. The uppermost 1.92 m of fill contained a high percentage of tiles, some rocks, and pottery of the late 13th and early 14th centuries. At ca. 83.24 m above sea level the fill changed texture and color, becoming more greenish with some carbon but without any roof tiles. The lowest fill, reddish in color, started at an elevation between 82.80 m and 82.55 m and contained a totally different type of pottery, much better preserved and noticeably earlier in date than the ceramic assemblage from the top of the pit. The lowest filling of the pit contained table garbage and may have been deposited at the time of the alteration of the drain; if that is so, the activity should be dated within the third quarter of the 13th century. The uppermost fill, with its admixture of tile and rubble, might best be equated with the clean-up after the Catalan activity of A.D. 1312.

Pit 1996-10 probably originally serviced occupants of buildings on both sides of the north-south street. With the alteration of the garden wall and the course of the drain, the occupants of Unit 1 took over complete control of the pit and isolated it within their garden. The foundations and associated stratigraphy around the mouth of the pit were not well enough preserved to determine whether or not the structure enclosing the mouth of the pit had been erected when the pit shaft was excavated or was constructed only after the drain was no longer allowed to empty within the garden. The construction of the structure around the pit might best be connected with the conversion of the shaft into a cesspit.<sup>5</sup>

<sup>&</sup>lt;sup>5</sup> I thank Mr. Michael Smith for his careful supervision of this area in 1996 and for his subsequent processing of the material from the pit. The ceramic material from pit 1996-10 is stored in pottery lots 1996-19 through 1996-23.

Pl. 5

#### INVENTORIED MATERIAL FROM THE TOP FILL OF PIT 1996-10

## 1. Sgraffito pitcher

Pl. 5

C-1996-25. Pres. H. 0.226, Diam. of foot 0.111, max. Diam. of body 0.147 m.

Moderately fine red clay with rare large white, fewer red, inclusions. 2.5YR 6/6.

Disk foot with flat resting surface, globular body partially dented, steep shoulder, cylindrical neck articulated by rib at joint with body. Vertical handle, oval in section with two ridges. White slip on neck, handle, and upper two thirds of body. Incised wave scribble in two rows, one around upper body, the second around neck and over neck rib to shoulder. Ocher glaze over rim, handle, and upper third of body.

## 2. Protomaiolica chevron saucer

Pl. 5

C-1996-10. Diam. of lip 0.162 m.

Compare C-1994-6, from lowest fill within vaulted pit: Williams and Zervos 1995, no. 5, p. 25, pl. 4; compare, also, C-1995-3, from the built pit: Williams and Zervos 1996, no. 2, pp. 10-11, pl. 6. Both of these are dated ca. A.D. 1312.

## 3. Matt-painted trefoil jug

Pl. 5

C-1996-26, H. 0.249 m.

Local clay.

Ovoid body poorly executed immediately above flat base; conical neck; tall, outset trefoil rim; single handle; body decorated with broad-brushed, mattpainted spirals. Other trefoil pitchers of this series: Williams and Zervos 1992, no. 32, fig. 13, pl. 41 (poorly preserved); Williams and Zervos 1988, no. 17, p. 105, pl. 36. Williams and Zervos 1988, no. 12, p. 104, pl. 34, is probably not from the same series, having slightly different clay and incised as well as matt-painted decoration.

Possibly beginning of 14th century: 3 may be the latest of the series or executed by a careless potter and painter.

#### 4. Vertical-rimmed stewpot with strap Pl. 5 handles

C-1996-27. Diam. of lip 0.191; H. of rim 0.052 m. Medium size. Cf. Williams and Zervos 1995, lot 1994-10:2, pp. 33-36, pl. 9:b (later than A.D. 1312). 4 is closer to Williams and Zervos 1994, no. 46, pl. 9, found in Unit 2, room 5 (ca. A.D. 1312 or earlier).

## 5. Matt-painted amphora (storage?)

C-1996-14. H. 0.3551, max. Diam. of body 0.235, Diam. of lip 0.078 m.

Local clay.

Ovoid body, concave bottom with button, strap handle 0.051 m wide. Double spiral in matt paint between handles.

Close to Williams and Zervos 1995, no. 29, p. 31 (A.D. 1312 or later). The body of 5 is more ovoid than examples of the same class from well 1991-1, which was probably filled in the 1260's: Williams and Zervos 1992, pls. 34, 35.

#### 6. Amphora with heavy, high-swung Fig. 4 handles (transport)

C-1996-24. H. with handle 0.515, H. to lip 0.467, Diam. of body 0.345 m.

Hard, reddish to reddish tan clay, light inclusions and mudstone, cream slip. Straw impressions on handle. Near exterior surface clay is 2.5YR 6/4 to 10R 5/6.

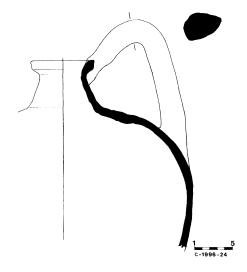


Fig. 4. Amphora 6 with high-swung handles, from pit 1996-10

Imported amphora with neck (interior convex) curving without sharp articulation to heavy, rounded lip; heavy handles, ovoid in section.

6 has the same form and clay as C-37-2007, from a pithos (pit 1937-3). C-37-2007 has a rim that tapers in a curve to a sharp horizontal lip. Probably late 12th or early 13th century.

Byzantine-Frankish amphoras with high-swung handles appear to be made in a number of areas and, possibly, to be from a number of workshops. For a local form of **6**, its body and clay close to CP-3002, see Williams and Zervos 1995, p. 30, fig. 6; its handles are heavy and have a slight central rib but do not rise as high as do those of **6**. For earlier variations of this form of neck and rim, and in different clays, see four examples in lot 1996-61 (Byzantine, third quarter of 13th century). These have a concave interior neck and a heavy, rounded lip.

An amphora, with a low neck that curves to a horizontal lip, also with high-swung handles, this time strap in section, appears to be made of Corinthian clay; see 10 below. For a similar storage jar, see Williams and Zervos 1988, no. 19, p. 106, pl. 36, fig. 12, third quarter of 13th century.

## 7. Three bronze buttons

Pl. 6

MF-1996-9. Max. Diam. 0.0061 m.

Similar to smallest buttons from grave in St. John's church, Williams and Zervos 1992, no. 38, p. 170, pl. 44.

## 8. Bronze thimble

Pl. 6

MF-1996-10. H. 0.011 m, now flattened.

Thimble without closure at top; vertical rows of dots punched into wall between plain bands around upper and lower edge. Cf. *Corinth* XII, no. 298, p. 48, not dated.

From third level of fill in pit

9. Plain blown-glass cup

Pl. 6

MF-1996-07. H. 0.0772, estimated Diam. of lip

Colorless glass, undecorated.

Corinth XII, no. 735, p. 112, dated from late 11th to mid 12th century.

Note: fragments of brownish purple glass bottle, MF-1996-14, join with glass from lowest level of pit.

From fourth level of fill in pit

**10.** Amphora (storage?) with high-swung Pl. 6 strap handles

C-1996-28. H. from toe to rim 0.34, max. Diam. 0.216 m.

Local clay fired greenish.

Local amphora with rim articulated from neck by groove.

See Williams and Zervos 1995, no. 30, p. 33, fig. 5, pl. 9, from vaulted chamber west of room 12 of Unit 1, where rim flows out of neck without articulation; local, probably latest in series (after A.D. 1312).

Probably around or before A.D. 1300.

From lowest fill of pit (+82.54-82.07 m)

**11.** Standing plastic figurine, crowned Pls. 6, 7 woman (salt cellar)

C-1996-21. H. 0.201, Diam. of bowl 0.067 m. Fine, buff clay with rare white inclusions. 7.5YR 7/4 to 7.5YR 7/5.

Standing female wearing diadem with sawtooth edge; braids (edge of veil?) falling from crown over ears and down sides of head. Broad, flat face tilted slightly upward, pinched arched nose, horizontal incision for small mouth, small pointed chin, long neck. Flaring, hollow, and wheelmade cylindrical body with double groove around bottom, perhaps to represent hem of dress. Arms applied as bands of clay, ends flattened against bowl that figure carries in hands against breast. Bowl has flat bottom, wide flaring body to vertical, squared rim. Body of figurine carelessly glazed in green with drip marks down back and sides. Upper neck and head reserved; dark brown glaze used to outline braids, bottom of crown, eyebrows, dotted pupils.

**12.** Protomaiolica bowl with blue chevron band C-1996-20. Diam, of rim 0.156 m.

Compare C-1994-93, which has smaller and finer grid executed in heavy brown-black glaze; from bothros 2, NB 866, basket 21.

13. Incised clear-glazed bowl

Pl. 8

C-1996-16. H. 0.09-0.10, Diam. of foot 0.075, Diam. of rim 0.217 m.

Clay ranges from fine, light pinkish buff to light reddish tan with large white inclusions. 7.5YR 7/4.

Complete bowl, rim mended. Vertical ring foot, beveled above rounded resting surface, flat undersurface. Body flaring at *ca.* 45 degrees, wheel ridges (from turning) visible on body. Paring of lower body articulates joint with foot. Vertical rim 0.030 m high flares slightly to round lip. Light cream slip and ocher glaze across entire interior, overlapping exterior of rim. Incised decoration on interior: compass point at center of floor surrounded by two concentric circles; two irregular concentric lines at juncture of body and rim.

## 14. Clear-glazed plate

Pl. 6

C-1996-17. H. 0.045-0.052 (lopsided), Diam. of foot 0.060, Diam. of rim 0.172 m. Clay same as above.

Plate chipped but intact. Ring foot irregularly trimmed and beveled, nippled undersurface. Body flares *ca.* 30 degrees to rounded lip. Prominent wheel ridges on body. White slip and clear glaze with greenish tinge on interior, dripping over exte-

## 15. Clear-glazed bowl

rior of lip.

Pl. 6

C-1996-18. H. 0.059-0.066, Diam. of foot 0.053, Diam. of rim 0.138 m.

Clay same as above but with lime inclusions, some of which have caused the surface to spall.

Bowl mended from two pieces. Carelessly pared ring foot, flat resting surface, conical undersurface. Ovoid body rises to height of 0.040 m; vertical rim, flaring slightly toward tapered lip. Lower body trimmed above foot leaving sharp articulation. Single stacking mark on exterior lower body. Light slip on interior and over lip, over which is clear, yellowish green glaze.

#### 16. Glass bottle

Pl. 7

MF-1996-14. H. 0.293, Diam. of rim 0.029, Diam. of resting ring on bottom of body 0.103 m. Brownish purple glass bottle, ribbed, with cut-out bulge on neck.

Cf. Corinth XII, no. 779, p. 119, blue glass, dated 11th to mid 12th century; cf. also no. 784, p. 119, brownish purple glass, Venetian or Turkish period. Before A.D. 1312.

## **17.** Clear-glass bottle with cut-out neck bulge

Pl. 7

MF-1996-17. H. 0.293 m. Diam. of cut-out neck bulge 0.070 m.

Cf. Corinth XII, no. 780, p. 119, dated by Davidson from 11th to mid 12th century; cf. also Williams and Zervos 1995, pp. 37–38, pl. 11:c, d, lot 1994-10, and MF-1994-35, MF-1994-36, from context of ca. A.D. 1312.

# **18.** Glass rim of stemmed glass bottle? Pl. 7 MF-1996-15. P.H. 0.153, Diam. of rim 0.053 m.

#### 19. Glass bottle?

Pl. 7

MF-1996-16. P.H. 0.08, est. max. Diam. of body 0.10 m. Perhaps same as **18**.

## 20. Glass cup

Pl. 8

MF-1996-18. H. 0.0572, Diam. of lip 0.081 m. Plain, undecorated, colorless blown-glass cup with straight flaring sides.

Cf. Corinth XII, no. 735, p. 112, where the type is dated from late 11th to late 12th century.

13th century.

## UNIT 2

Investigation of Unit 2 (Fig. 5) during the 1996 season had three purposes. The first was to establish the construction date for the church that constitutes the southeast corner of the unit and to refine the chronology of the unit as a whole; the second was to complete the excavation of the graveyard in area 4, and the third was to define the northern limits of Frankish Unit 2.

The church was constructed in the 12th century as part of a monastery. A test trench,  $0.70 \times 1.20$  m, was sunk below the paving of the narthex to a depth of 1.30 m

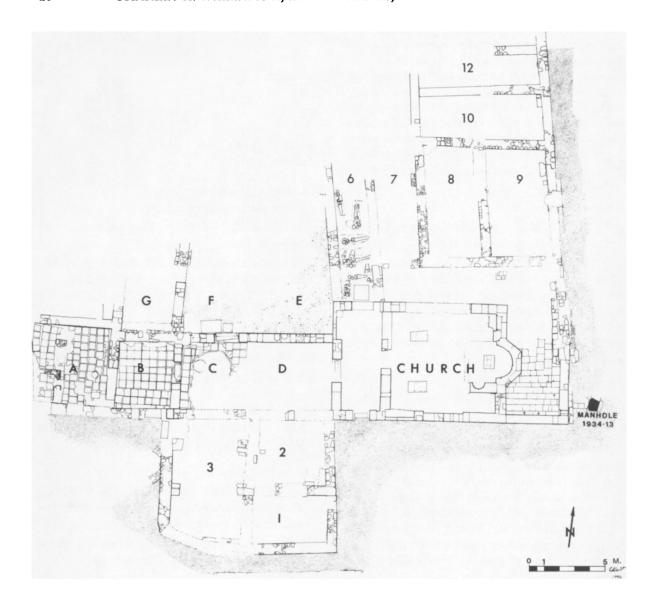


Fig. 5. Plan, Unit 2, ca. A.D. 1300

in order to establish the construction date. A built manhole was found at the bottom of the sondage, but its opening was too narrow to allow further excavation. The pottery from the trench, stored in pottery lot 1996-57, was sieved, but only 0.030 kg of glazed wares were recovered; these included eight white-ware sherds, all but one of which are green glazed. The exception is a blue spattered-ware plate with pinched rim. This may belong to a white-ware dish, C-1989-33, found in the vicinity in 1989.<sup>6</sup> The lot contains six fragments of green-painted red wares. Where identifiable the profiles are

<sup>&</sup>lt;sup>6</sup> Williams and Zervos 1990, no. 11, pp. 342-343, pl. 63.

early 12th century in date, including three fragments of stew pots with triangular rim and groove. The pottery lot as a whole, small though it is, fits comfortably within the first third of the 12th century.

The Byzantine-period rooms A–D west of the church appear to have been destroyed at the end of the 12th or at the beginning of the 13th century and then half-heartedly restored; by the mid 13th century the row of rooms was totally abandoned. The church was repaired in the mid 13th century, and at the same time its functions appear to have been changed or modified. Evidence suggests that the Franks converted the church to a burial chapel; in fact, expansion of the burial ground was being considered when some destructive force stopped the operation in mid-stride, probably in the early 14th century. Also, it now seems questionable that rooms 8–10 and room 12 ever functioned as part of the church complex in the second half of the 12th century.

Excavation of area 4 in Unit 2 this year was a continuation of work done there in 1991 and 1995.<sup>7</sup> The room had a tiled floor when it was part of the Byzantine monastery; in the Frankish period it was converted to an outdoor burial ground by the addition of a shallow earth fill, which was later deepened. The first use as a graveyard appears to have been in the second half of the 13th century; its last use as such was in the first quarter of the 14th century. The close packing of skeletons within area 4 churned the earth to such an extent that only isolated patches of the original stratigraphy were found undisturbed. Fragments of the Byzantine tile floor of area 4 and its cement bedding have been identified at an elevation of 84.97 m above sea level. About ten centimeters higher is a second floor, which in the extreme southeast corner of the room apparently covered destruction debris of the original building. Above this is a floor at 85.40 m above sea level. This third earth level is a lime-plaster crust, which was laid flush with the threshold of the door into the narthex. Over these three floors are two superimposed fills that are perhaps not to be considered so much floors as earth levels deposited in two consecutive periods. These discrete deposits may be no more than the superfluous earth redistributed after the filling of the latest grave shafts.

The first burials in area 4 were not made from the level of the Byzantine tile floor of room D but from the floor immediately overlying it. Some of the earliest graves, predominantly adult, had their shafts at least partially lined with some sort of crude stone and tile walling. The shafts were always shallow. Grave 1996-22 had a protecting side wall, perhaps laid for the first occupant. The second occupant of the grave, a child, was buried slightly later, apparently in a wooden coffin: eleven iron nails were found at the bottom of the grave, appropriately positioned around the articulated skeleton where they had held the side boards to the bottom of the coffin.

Over forty skeletons, either totally or partially articulated as they were found, and disturbed bones representing another twenty or more persons were cleared and studied this year (Fig. 6, Pl. 10). If the statistics gathered this year are added to those of the 1995 season and the skeletons that must still await excavation, one can confidently claim that the Franks had interred well over one hundred persons within area 4.

<sup>&</sup>lt;sup>7</sup> Williams and Zervos 1992, p. 137; Williams and Zervos 1996, pp. 19–20, fig. 8. Frankish room 4, or area 4, of Unit 2 is the same space as room D of the 12th-century Byzantine monastery.

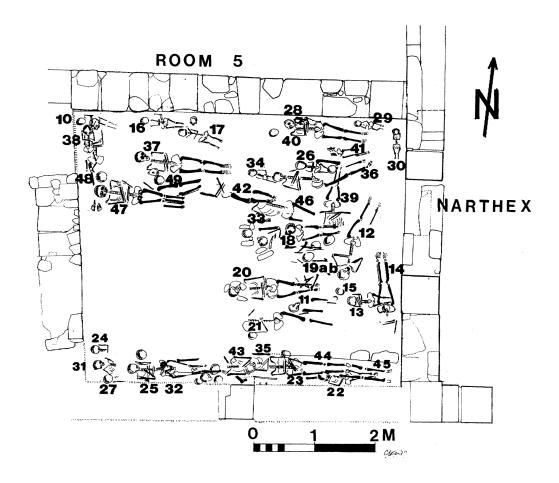


Fig. 6. Plan, Unit 2, graves in area 4 excavated in 1996

Once area 4 became closely packed with skeletons, the gravediggers appear to have found it impossible to lay out new graves without disturbing skeletons that already existed. The solution adopted was to continue using area 4 rather than to expand the graveyard, but when an already buried skeleton was uncovered in the course of digging a new grave, those parts of the earlier skeleton that were disturbed in the process were gathered and reinterred in the new grave with the new corpse (Pl. 10). It is thus common in this graveyard to have an adult buried with a number of extraneous bones positioned either over his or her lower legs or around the chest. Sometimes disinterred heads were used to prop the head of the new occupant, or at other times, they were placed at the new occupant's feet or even reburied without direct contact with the newly interred cadaver.

A large series of ordered graves, oriented east—west, was dug from the level of the plaster floor. These shafts were deeper than those of the first phase. One grave, 1996-25, contained the skeleton of a woman who died in childbirth, the skeleton of her child still preserved within her pelvis (Fig. 6). The latest graves made in area 4 were for a series of at least twenty-six infants and young children, carefully buried but at no great depth.

For example, the skeleton of grave 1996-30 was laid to rest in the northeast corner of area 4, with the east wall of the space forming the side of its cist (Fig. 6). Much of the rest of the cist was lined with small rocks and roof-tile fragments set on end. The shaft appears to have been no deeper than 0.20 m and to have been dug from the first ground level above the plaster floor. The infant had had its head held in position with a broken roof tile at either side and with a tile fragment on its chest to support the chin. These infant and child burials were concentrated along the west and north wall of the burial ground and do not appear to have been interred in direct relationship to any family grave plots or adults who were buried within area 4. Since the infant and child burials were both clustered and isolated and all were dug from the same level, probably having died all within a short time, it is not unreasonable to see here the results of an epidemic of some sort that had attacked the newborn babies and infants of the Frankish community at the very beginning of the 14th century.

The percentage of diseased skeletons recovered from area 4 is high if compared with a relatively healthy population sample. Some persons appear to have been seriously ill for a long period of time. One skeleton, for example, was so deformed by rheumatoid arthritis that its ankle joints were totally fused. Such a person would not have been ambulatory and would have needed continuous attention. For reasons of this sort, among others, it appears likely that the Byzantine church of Unit 2 was converted by the Franks, probably sometime in the middle third of the 13th century, into a burial chapel to serve the hospice that was housed in Unit 1.8

A stratigraphic analysis suggests that room 5 was being filled from the partition wall that separated it from area 4, that is, from the northwest corner of the existing graveyard, when the operation was abruptly stopped mid-project. The stratigraphy shows that the earth was dumped from the west end of the partition wall into the southeast corner of room 5, that is, over the children's burials in the northwest corner of area 4. The operation could have taken place only after the superstructure of the partition wall and probably the west wall of room 4 had been dismantled.

Pottery from the dumped debris excavated within room 5 and studied and mended during the winter of 1995/1996 was found to be closely related by ceramic joins to pottery recovered from the deep Frankish pit dug through the tiled floor in room C of the Byzantine monastery. Enough joins were made to suggest that both the fill of the pit and the earth tipped into room 5 were secondary fills derived from a single source.

Excavation in Unit 2 north of the church has exposed over nine meters of room 6 to its early-14th-century floor level, which was found between 85.51 m and 85.43 m above sea level. The room has an earlier, lower floor that was distinguished between 85.30 m and 83.26 m above sea level. The room is corridor shaped, being only 2.10 m wide and accessible through its short south end by a door from the church narthex. As of the end

<sup>&</sup>lt;sup>8</sup> Once again it is a pleasure to thank Dr. Ethne Barnes for the information she has so freely provided on the pathology of the skeletons from area 4. A detailed study of that material is being undertaken by her and will appear in a separate publication.

<sup>&</sup>lt;sup>9</sup> Williams and Zervos 1995, pp. 13–14, 17. The pottery from the pit is stored in pottery lots 1994-42 through 1994-44.

of 1996 nine articulated skeletons have been excavated from within the corridor, all of which were confined to the southernmost seven and a half meters of the room, close to the narthex. The corpses, randomly placed, had been buried from both the upper and the lower floors. Most of the skeletons had a stone placed at either side of the head to keep the skull face up, as well as a stone secured under the chin to keep the lower jaw from dropping.

Only rooms 6 and 10 north of the church had their floor levels raised. It may be that the fill between the floors in room 6 was introduced in order to protect the earlier burials from the continued program of interment that was being anticipated for the room. Because of the burials and the direct connection between the narthex and room 6 one can safely assume that this corridor had been designated for use by the church.

Room 7, also long and corridorlike, runs parallel to room 6 and shares a north-south party wall with it. It was not, however, directly accessed from the church or narthex; a doorway is restored in the party wall between rooms 6 and 7 at the point where it meets the north wall of the church. This door would have allowed passage into room 7 from the narthex through the south end of room 6. Room 7 also was accessible from the north-south street east of the church by means of a paved court that gave access to a corridor along the north flank of the building. Only one floor level was preserved within room 7, at ca. +85.37 m but varying in elevation; it was apparently laid down to be level with the lower floor of room 6. Tile destruction debris was found in places on the floor within room 7, but apparently the fallen tiles had been disturbed by persons rooting through the remains after the destruction. This is also true of rooms 8 and 9, which lie east of room 7.

Since no threshold blocks are now preserved *in situ* in any of the walls of rooms 8 and 9, it is hard to prove that the spaces were directly connected to the church complex.

Rooms 10 and 12, located north of rooms 8 and 9, run parallel; they are between 8.00 m and 8.20 m long east—west and share a party wall. Part of a threshold for a door is preserved in the east wall of room 10 at an elevation of +85.51 m. The public roadway passes along this east wall at about 85.43 m above sea level. As is true with most of the entrances into the large rooms of Frankish design in Unit 1, the door of this room is placed at the corner of the east wall. Because the original floor of room 10 is 0.398 m lower than the threshold, a flat stone step has been set upon the earth floor to compensate for the difference. None of the other walls of that room preserves evidence for a connection between rooms. Against the east wall of room 9 also are the remains of a step on its floor, suggesting that this wall, too, may have had a threshold, now missing, built into it.

As already mentioned, room 10 had had its floor level raised, in this case from an elevation of +84.99–85.08 m to +85.20–85.46 m, bringing the interior floor close to the level of the roadway outside the building. A circular oven, largely constructed of poros stones, was built upon the later floor. This alteration may imply a change in the function of the room, for no trace of a hearth or oven was found on the earlier floor. The ash around the hearth was laced with bones, an indication that this structure definitely was used for cooking foods and not for industrial purposes (bone lot 1996-39).

Although rooms 6–10 and room 12 share party walls, and evidence exists to suggest that rooms 6 and 7 are part of the church complex, one can also argue that rooms 10

and 12, and possibly 8 and 9, were not directly associated with the church; nor did the last four rooms function as a group. In fact, some facts suggest that rooms 10 and 12 were separate from the church complex proper, at least in the last years of Unit 2, and that they may have operated independent of it. For instance, separate direct access to the public byway from the individual interior spaces (possibly room 9, definitely room 10) favors a theory of independent use, if not independent ownership.

## Manhole 1934-13

The roadway that stretches north-south along the east side of Unit 2 passes around manhole 1934-13, a public water source that apparently also served the church of Unit 2. It is only 2.80 m southeast of the doorway that gave access from the road to the paved court east of the church apse. The manhole was excavated in 1990 and published in the *Hesperia* report of that year. <sup>10</sup>

The shaft had three corridors that fed into it: one on the south wall, one on the north wall, and one on the northeast. None of these corridors was cleared for much more than one meter beyond the shaft. Where filled, the shaft was blocked by three chronologically different earth deposits, the topmost being a single homogeneous stratum of Frankish date. Above the topmost fill the manhole was empty for 9.60 m to the mouth, which, when found, was closed and sealed with a covering of stones. The four-meter-deep Frankish deposit contained pottery that ranged in date from the late 13th century through the first years of the 14th century, except for one Padana-ware sherd, C-1990-94. The coins from the manhole and associated corridors were recovered in extremely bad condition: four are possibly not even coins, five are illegible, one (coin 1990-354) is a Greek Corinthian Pegasos/trident, three are of the Roman period, one is a Byzantine anonymous follis, two are unidentified Byzantine (A.D. 1092–1204), and the latest two were minted in the reign of John II (A.D. 1118–1143). For a discussion of the human bones found in the shaft, see pp. 30–31 below; for the animal bones, see the Appendix, pp. 43–46.

## INVENTORIED MATERIAL FROM THE MANHOLE AND CORRIDORS

#### POTTERY

21. Local sgraffito and clear-glazed plate with pinched lipC-1990-87. Max. p. dim. 0.092 m.

**22.** Local bowl, clear glazed over slip C-1990-46. Diam. of lip 0.153 m.

Closely related in clay and technique to **14** and **15** (Pl. 6) from pit 1996-10. Profile of **32** with higher vertical wall is earlier.

Published: Williams and Zervos 1991, no. 23, p. 32, pl. 5.

**23.** Local brown paint-decorated plate Pl. 8 C-1990-88. Diam. of lip 0.252 m.

<sup>10</sup> Williams and Zervos 1991, pp. 31–37. For the coins, see note 18 on p. 32. Coin 1990-355 should be read as coin 1990-354. The total of ten coins cited there does not include the unidentifiable coins or possible fragments, 1990-36, 1990-37 (an uncertain Greek imperial), and 1990-43–1990-45, and five coins, 1990-358 and 1990-360–1990-362, that had been cleaned after the 1990 report was written.

**24.** Veneto-ware bowl with ovoid body, unslipped C-1990-47. Est. Diam. of lip 0.14 m. Mended from 6 fragments.

Slightly darkened glaze on reddish brown clay. Published: Williams and Zervos 1991, no. 24, p. 32, pl. 5; Williams and Zervos 1992, p. 154, fig. 8.

**25.** Veneto-ware carinated bowl, unslipped, green glazed and rouletted

C-1990-48. Max. Diam. 0.10 m. Mended from two fragments.

Published: Williams and Zervos 1991, no. 25, p. 32, pl. 9; mentioned: Williams and Zervos 1992, p. 154.

**26.** Veneto-ware carinated bowl, green glazed and grooved

C-1990-49. Max. Diam. 0.10 m.

Published: Williams and Zervos 1991, no. 26, p. 32, pl. 9.

**27.** Metallic-ware round-mouthed pitcher, brown glazed

C-1990-51. Max. p. H. 0.179 m.

Published: Williams and Zervos 1991, no. 28, p. 33, pl. 10.

**28.** Metallic-ware shoulder-spouted pitcher, brown glazed

C-1990-50. Max. p. dim. 0.077 m.

Published: Williams and Zervos 1991, no. 27, pp. 32-33, pl. 9.

**29.** Metallic-ware multihandled carinated bowl, brown glazed

C-1990-89. Max. p. L. 0.142; est. Diam. of lip 0.31 m.

For the form, see Williams and Zervos 1992, no. 20, pp. 156–158.

Rim decoration is a single wavy incised line at the edge of the rim between two concentric incised lines.

**30.** Bowl with horizontal rim Fig. 7

C-1990-91. Approx. Diam. of lip 0.16 m.

The class of bowl to which 30 belongs is represented in the Corinth collection by seven examples; all are similar, but unfortunately, not all are from the same workshop or necessarily from the same production center.

C-1996-51, C-1994-23, and C-38-534 are similar enough in clay, slip, and profile to be grouped together (Fig. 7). All three come from contexts of the late 13th and early 14th centuries. C-1996-51 was found in the same stratum as seven bronze coins, six of which can have been struck between the second half of the 13th century and A.D. 1314:

coin 1996-45, Byzantine, 6th century after Christ coin 1996-46, Philip of Savoy, A.D. 1301-1307 coin 1996-46, Isabel Villehardouin, after A.D. 1397

coin 1996-48, Frankish, uncertain ruler, A.D. 1260-1312

coin 1996-49, Philip of Tarentum, A.D. 1294-1313

coin 1996-53, Guy de la Roche, A.D. 1287-1308 coin 1996-67, Frankish, A.D. 1301-1307

Maiolica bowl C-1994-23 was found in a vaulted chamber that was filled after A.D. 1312 (see Williams and Zervos 1995, p. 28, pl. 7). For another example from the same fill, with a slightly greenish tinge to the glaze, see Williams and Zervos 1995, pl. 10:d (pottery lot 1994-10, Fig. 7). A larger version of this bowl, with a lip diameter of 0.163 m and clear glaze, was recovered from the same context. Maiolica bowl C-38-534 was found with a Venetoware rouletted bowl and an ivory-ware laver, all from a single deposit in the Monastery of St. John (pottery lot 1938-23).

C-36-23 (Fig. 7) has a thicker wall, redder, rougher clay, and slip dripped down its exterior wall in a decorative pattern. Its clay is closer to C-1990-91 (Fig. 7) than to the first three examples; the profile of C-1990-91 resembles C-1992-33 (Fig. 7) in its flaring lower body and angled midpoint more than the first three saucers with their ovoid body profile. At the moment it is not possible to determine whether or not the carination in the body of the Maiolica bianca saucers from the Corinth collection is an indication that they are of slightly earlier date than those with an ovoid profile; possibly the carinated profile signifies a potter's individual style. According to the present evidence, however, one can say that Maiolica bianca of every sort was first imported to Corinth not much before the end of the 13th century, if that early.

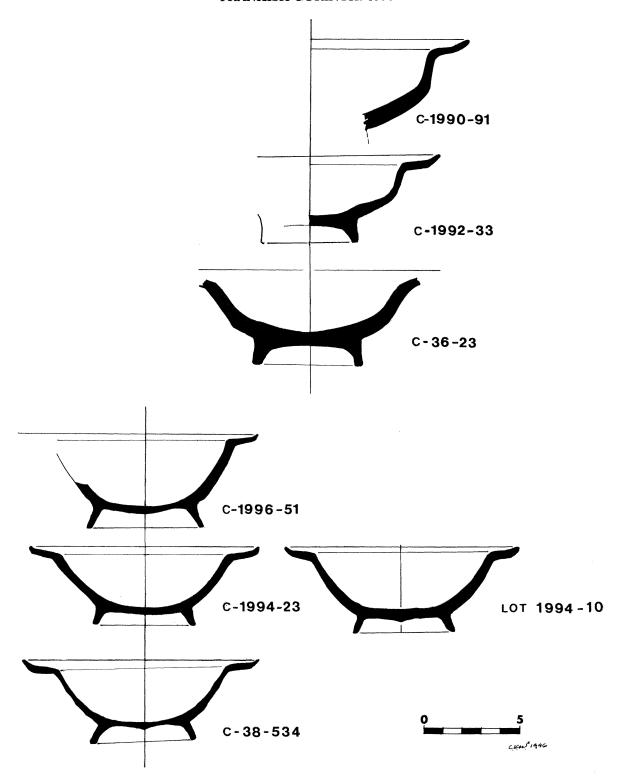


Fig. 7. Maiolica bianca bowls

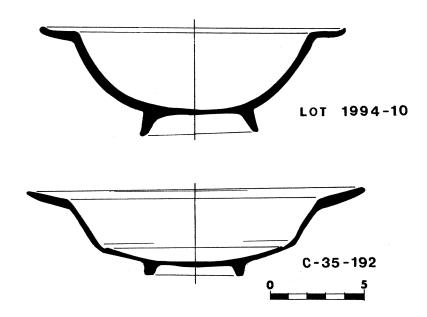


Fig. 8. Maiolica bianca bowl; ivory-ware saucer

C-35-192, an ivory-ware saucer (Fig. 8), has a profile resembling a Maiolica bianca bowl (Fig. 8), with a lip diameter of ca. 0.181 m. A comparison of profiles shows that the ivory-ware bowls are not to be confused with the true Maiolica bianca forms. (C-35-192 is illustrated in Williams and Zervos 1992, pl. 43). It is made of a clean, fine, blonder clay and has a different place of origin, possibly having been manufactured at Clementia in the northwest Peloponnesos. Ivory ware appears at Corinth slightly earlier than Maiolica bianca.

## **31.** Padana-ware sgraffito and greenglazed bowl

C-1990-94. Max. dim. 0.041 m.

Same sgraffito decoration with pale green and brown paint and clear glaze on both inside and outside surfaces.

The Padana-ware sherd is light, weighing only 0.0075 kg. It was recovered from the underground tunnel that enters the shaft of manhole 1934-13 from the north. This tunnel was not cleared for more than one meter from the shaft; thus it is now impossible to ascertain if this sherd had entered the fill through an entrance farther along in the corridor. A less likely explanation for this single contaminant is an accident at the sherd study area or during

pot washing. Excavation within the mouth of the north tunnel produced 729 sherds, or 14.39 kg of ceramics (pottery lot 1990-137). That assemblage appears to have no other contaminations in it.

For the decorative pattern, see Magnani 1981, pl. XXVIII (plate dated to the end of the 14th century). See also the line drawing of the pattern on the ninth unnumbered page after p. 239, top left. Pattern dated within 14th–15th centuries.

# **32.** Tall-necked stewpot with offset rim, small size C-1990-55. H. 0.152-0.155 m.

Published: Williams and Zervos 1991, no. 30, p. 33, pl. 10.

## Tall-necked stewpot with offset rim, medium size

C-1990-56. H. 0.197 m.

Published: Williams and Zervos 1991, no. 31, p. 33, pl. 10.

These two stewpots have an almost identical neckand-rim profile. Both have a neck height between 0.04 m and 0.042 m; their rims are 0.020-0.021 m high. For a date of around A.D. 1310 the rim should be about one-third the full height of the neck and rim, while the proportion of neck and rim to body varies according to the capacity of the container, not to its date.

## METALLIC OBJECTS

## 34. Lead token, 4th century B.C.

MF-1990-56. Diam. 0.025 m.

Obverse: horse and rider, going l.; reverse: two-ridge frame with wheel design of four spokes meeting at right angles, pellet at center. Each spoke delineated by raised double lines.

## **35.** Iron key on ring

Pl. 9

MF-1990-58. Diam. of ring 0.049, L. of key 0.075 m.

Iron ring, square in section. Key originally was movable along ring. Shaft of key is rectangular with taper to end. Simple wards occupy 0.036 m of shaft.

Cf. Corinth XII, no. 2222, p. 273, pl. 115, dated to the Byzantine period.

## **36.** Unfinished bronze finger ring

**38.** Bronze buckle

Pl. 8 MF-1990-59. Max. Diam. measured side to side 0.0225 m.

Ring with casting seam around exterior surface and across bezel 0.01 m wide; on opposite side of ring remains of pour channel 0.007 m wide. Interior apparently worked smooth; it no longer carries any trace of the mold seam.

#### Pl. 8 **37.** Bronze circular brooch or buckle

MF-1990-64. Diam. of ring 0.021 m.

Circle of bronze with flattened wire tongue attached to ring by twisting; tongue pointed at free

Closest parallel is no. 2222 (buckle) in Corinth XII, p. 273, pl. 115, "context to twelfth century, but probably not later than the tenth century." 37, however, has three close parallels from the early-14th-century level of destruction in Units 1 and 2 and at least three from the Frankish graveyard within Unit 2. Buckle MF-1995-3 comes from the floor of room 5 of Unit 2; MF-1992-14 comes from the destruction debris of roof tiles over the bedding for the tile floor of room 2 of Unit 1; MF-1992-13 is from the roof destruction debris above an area of marl clay floor in room 2, Unit 1.

The most interesting example, MF-1996-39, however, comes from grave 1996-41 within the open area immediately west of the narthex of the church

of Unit 2. The brooch or buckle was found, in situ, on the thoracic vertebrae of a child, the bronze having stained the bone. Because of the position in which it was found, the clasp, with sharply pointed tongue, most probably had been used as a brooch to hold material in place around the neck of the buried child or, perhaps, to keep a shirt closed.

Two iron brooch/buckle clasps of the circular type, MF-1996-46 and MF-1996-47, were recovered from grave 1996-47, one found lying on the right side of the pelvis, the second, in mirror image, on the left side. These are 0.053-0.055 m in diameter. By identifying this class of clasp as brooch/buckle, rather than simply as buckle, less problem exists in explaining the widely diverse buckle forms recovered from manhole 1934-13 as belonging to a single period. Note that 38 and 39 are designed specifically as buckles.

Late 13th or early 14th century.

MF-1990-63. L. 0.028, W. 0.024 m.

Cast; one face rounded, the other flat. Straight bar for belt attachment, rectangular open area between it and second bar, which is nicked at center for tongue (missing). Head of buckle is a hollow halfround.

Close to Corinth XII, no. 2202, p. 272, pl. 114, "context early twelfth century, but probably not later than the tenth century." Because of the Byzantine 12th-century coins recovered from manhole 1934-13 and the lack of good 13th-century contexts in the Corinth collection for this type, the buckle can be considered to be an early stray.

#### **39.** Bronze buckle

Pl. 8

Pl. 8

MF-1990-66. L. 0.019, W. 0.018 m.

Cast. Straight horizontal bar, rounded on both sides; head of buckle has bolster notched for tongue. Corinth XII, no. 2240, p. 274, pl. 115. Byzantine

period or later.

40. Bronze scale weight, bottommost of a nested set

MF-1990-65. Weight 77.89 g.

From north corridor, along with the Padana-ware sherd.

Mentioned: Williams and Zervos 1992, p. 140, under no. 1.

Frankish Units 1 and 2 have produced numerous good deposits of pottery in the course of the recent excavation of the area southeast of Temple E. These deposits add to the precise dating of Frankish ceramic chronology at Corinth. Because strides have been made even since the initial publication of the pottery from Frankish manhole 1934-13 in 1991, a reexamination of the contents of that manhole was made this year. One Padana-ware sherd, 31, found in a side tunnel opening into the manhole, is datable to the late 14th century; otherwise the latest material, the Veneto wares and the Maiolica bianca, is quite appropriate at the end of the 13th and into the first fifteen years of the 14th century.

A cut-off date of ca. A.D. 1312 is feasible for the closing of manhole 1934-13. In that year the Catalans attacked and sacked Corinth. The event is attested in a letter sent to Pope Clement V in Avignon in which the Roman Catholic bishop of Corinth, Bertholomew, wrote that he was unable to pay his tithe as a result of the devastating effect of a Catalan attack on the city.<sup>11</sup>

The closing of manhole 1934-13 was not associated with the Catalan attack of A.D. 1312 in the 1991 excavation report. This year, however, Dr. Ethne Barnes has studied the human bones that were recovered from the Frankish fill of the manhole. Slaughter and cut marks on a number of the skulls and leg bones suggest death by battle or massacre for at least a part of the population. After such mayhem it may have been considered an effective tactic then to pollute Corinth's water by the disposal of dead bodies or parts of bodies, human or otherwise, in wells and manholes, thereby distracting the Corinthians, at least temporarily, from ideas of immediate retaliation.

The manhole contained a minimum of nine adults, both male and female, one child, and one infant: in all, 16.59 kg of human bones. The genetic markers on the skeletal remains are similar to those found on the skeletal remains of the Frankish burials in room 4 of Unit 2.

Two of the human skulls, both adult males, were partially reconstructed. The longer skull has a cut mark 47 mm long extending from front to back from the suture between the frontal and parietal bones on the left side of the top of the head (Pl. 11:a). This cut mark is 4 mm wide and did not penetrate the inner bone layer of the skull. There is evidence of some healing along the margin of the cut mark, as indicated by fine periosteal bone reaction. Apparently this wound was inflicted a few weeks before death. More striking slash marks were found on the left side of the head. Some sort of broad blade must have been used to produce the crescent-shaped slice mark 59 mm wide and made at an oblique angle, extending from just above the temporal border above the left ear and slicing off the entire mastoid area behind the ear. This blow appears to have been delivered in a downward strike from above the upright head of the victim. Another crescent-shaped slice mark, 46 mm wide and made at a more vertical angle, was then delivered to the back of the skull, abutting the earlier slice mark.

The second partially reconstructed skull carries a horizontal cut mark, 60 mm long with curved ends, on the top of the skull, from a blow delivered at an oblique angle from above the head of the victim, without penetration of the inner layer of bone (Pl. 11:c). Unfortunately, this part of

<sup>11</sup> See note 22 below.

the skull had been damaged by modern breakage. The present condition of the skull makes it difficult to determine the full extent of the wound.

A third skull is represented only by a piece of the right occipital bone from the back of the head. It shows a crescent-shaped slice mark 44 mm wide, made at an almost vertical angle, that would have cut through the lower portion of the right side of the skull and through the area of the right ear. This blow most likely was delivered to the victim from behind, possibly as the victim was on the ground.

The right hand of an adult displays a vertical, oblique slice mark through the lateral aspect of the third metacarpal near its base. This slash may have severed the fourth finger and upper portion of the neighboring fourth metacarpal of the hand to reach the base end of the third metacarpal in the center of the hand near the wrist. The wound on the bone shows some splintering near the end of the slash mark, indicating that the blade was withdrawn before it cut through the wrist or that the victim withdrew the hand before any further damage could be inflicted.

Two distal tibia pieces from the lower legs of two distinct individuals preserve cut marks just above the ankle joints. The right tibia has a cut mark 19 mm long on the back side above the ankle (Pl. 11:b). This is 2 mm wide in the center and 2 mm deep. The other tibia, from a left leg, has two horizontal cut marks on the outer border of the back side above the ankle (Pl. 11:d). The upper cut mark is 10 mm long, 1 mm wide, and 2 mm deep; it has a slightly ripped edge. The other cut mark, 19 mm long, 2 mm wide in the center, and 2 mm deep, is more ragged. All the cut marks on the back side of the lower legs above the ankles appear to be deliberate blows to the Achilles tendon made to disable the legs of the victims as their backs were to the attackers.

The proximal end of a radius from the right forearm of an individual was chopped off at an oblique angle by a blow directed from above the forearm. Most likely the ulna was also chopped off, since both bones were closely aligned in the forearm. Cut and slash marks on other human bones may have been obscured by breakage and damage during excavation and sieving of the material from the manhole. The cut and slash marks identified in seven of the human bones strongly suggest, however, a massacre.

Ethne Barnes, 9 July 1996

The identification of the ethnic group(s) in control of Units 1 and 2 has been in question since excavation in 1989 south of the archaeological museum uncovered Frankish levels. The different percentages of local and imported pottery can indicate no more than general trade affinities or market preferences. Jetons from Tuscany suggest commercial activity and connection with banking families of Siena and Florence but tell almost nothing about the property owners. The glass found at Corinth is a no more precise indicator. Burial customs and the skeletons themselves are also indicators, but at this point in the present study, architectural remains recovered from Units 1 and 2 show some of the clearest non-Byzantine influences; these are to be seen in plain, undecorated pointed arches, door jambs, and sills that are of North European design, but the five large architectural blocks from Frankish or post-Frankish places of reuse are the artifacts perhaps most indicative of owner interests yet to be found in the Frankish excavation.

#### ARCHITECTURAL CATALOGUE

## 41. Keystone

Pl. 9

Uninventoried.

Max. H. of front face 0.54, W. of soffit *ca.* 0.305, D. of soffit from front to back face 0.225 m.

#### **42.** Voussoir

Pl. 9

Uninventoried.

Restored W. of soffit 0.333, p.D. of soffit from front to back face 0.21 m.

Two soft limestone blocks, possibly from the same monument, perhaps from the same arch. Both have a single three-quarter-round rib crowned with a flaring soffit. This profile is used in the five doors of the west façade of the monastery at Daphni, an alteration made in the 13th century by the Franks under the Dukes of Athens. A similar profile is also used around the doorway in the south wall of the nave of the Cistercian monastic church of Zakara (Stymphalos).

Using the keystone and voussoir together, the full span of an opening ca. 1.00 m to 1.20 m wide can be restored.

## 43. Voussoir

Pl. 9

Uninventoried.

Restored W. of soffit 0.333 m.

Complete soft-limestone voussoir from an elaborate Gothic arch. The block is 0.26 m long, measured along its curved soffit. Two superimposed ribs: one at the outer edge of the curved soffit, the second

above the first, but with its maximum projection flush with the vertical front face of the block. The two ribs are separated by a right-angle fillet. The compound molding of this voussoir is 2-1/2 times the height of the molding with a single rib, 42.

The full span of the opening in which this voussoir was used cannot be determined from the curve of its arched soffit.

## 44. Applied half-column, fragment of lower Pl. 9 shaft

Uninventoried.

P.H. 0.377, W. across back 0.175; W. across front 0.19, Diam. of shaft of half-column 0.156 m. Local soft limestone of poor quality.

Rectangular block 0.205 m wide, with rectangular plinth 0.075 m tall, spreading across the full width of the front face. Base under shaft is crude half-round slightly squared in plan, above which is a vertical face with max. H. 0.032 m; above is setback to shaft.

Member executed with chisel, apparently coarse claw.

Because the sides of this block taper from front to back, the block is a candidate for placement as an applied column between windows on the drum of a church dome of Byzantine type, albeit of Frankish design. See Hagia Triada at Merbaka for a parallel.

Similar in concept to *Corinth* XVI, no. 45, p. 108, pl. 24. See also Cooper 1996, p. 31, fig. 4:a.

It is likely that the keystone and voussoirs are from doors or windows of North European design, carved as special features by Frankish monks or master builders, perhaps set into a wall built by local workmen, as part of the alteration of or addition to a Byzantine building; likewise, the keystone and voussoirs might be the existing remains of a whole project overseen by a master builder from France. Whatever the case, we have no concrete evidence as yet for assigning the fragments to any special position in any specific monument. One fragment, the keystone, was recovered from the projecting socle of the east wall of Unit 2, only one meter from manhole 1934-13. The voussoir block from the same series was found reused in the southeast corner of an 18th–19th-century wall about eleven meters north of the church. The voussoir with the double rib was found in a late Frankish or post-Frankish wall just west of the west wall of Unit 2. This wall had been constructed over the underground vaulted chamber that projected west from room A of Unit 2.

## UNIT 3

One north—south road passes along the east side of Unit 3; opposite the unit, on the east side of the road, are the garden of Unit 1 and the small public square north of it (Fig. 2). Included within the architectural limits of Unit 3 is a room 6.00—9.50 m west of the north—south roadway, excavated by G. D. R. Sanders in 1986, and other rooms directly adjacent to the roadway that were excavated in 1993, 1995, and 1996. At this moment no overall plan can be suggested for the rooms of Unit 3; in fact, determining the plan and extent of the unit is hindered by the limited scale of excavation in this area. The numerous radical transformations that appear to have taken place during the life of the unit add to the confusion.

The western portion of Unit 3 appears to have been constructed upon a deep fill of the 10th century after Christ, and when the unit was abandoned it was covered by a dump that should be dated within the fourth quarter of the 13th century, if not within the early 14th century.

One of the eastern rooms of Unit 3 that abuts the roadway, here referred to as room 3, was in its first phase a site for garbage pits, with its lowest floor perforated by four pits, 1996-3 through 1996-6 (Pl. 14:a). 13

The bones from pits 1996-3 through 1996-6 within Unit 3 appear to be discards from the dining table mixed with bones from a slaughtering and butchering process; on the other hand, the identifiable bones from the lower levels of pit 1996-10 in the garden of Unit 1 are all able to be associated with food scraps and discarded bones from the dining table.

Pit 1996-5 is perhaps the most interesting of the bothroi, for it contained four Latin Imitation bronze coins, datable between A.D. 1204 and 1262, as well as a ceramic sample representative of the period. The largest fragments of pottery from the assemblage suggest a date in the second quarter of the 13th century. Local bowls and plates that are lightly slipped have been paint- and slip-decorated and totally covered on the interior with a clear glaze. These are typical of the period, as are the clear-glazed bowls, one of which has a pinched rim. One pitcher has green spirals on its shoulder over a dilute slip, the whole covered in a clear glaze; a plate with pendent stacked triangles in green on its shoulder is executed in the same technique. One non-slipped and painted plate, decorated in brown spirals, suggests a date around the middle of the 13th century.

<sup>&</sup>lt;sup>12</sup> Sanders 1987, pp. 159-195; Williams and Zervos 1996, pp. 30-34.

<sup>&</sup>lt;sup>13</sup> Pit 1996-1: pottery lot 1996-4; bone lot 1996-41. Pit 1996-3: pottery lot 1996-27 (for selected sample, see Plate 12); bone lot 31.

Pit 1996-4: pottery lot 1996-28 (for selected sample, see Plates 13, 14:b; bone lot 1996-32.

Pit 1996-5: pottery lot 1996-29; bone lot 1996-33.

Pit 1996-6: pottery lot 1996-30; bone lot 1996-34.

Pit 1996-9: pottery lot 1996-68; bone lots 1996-9-1996-11.

Pit 1996-10; pottery lots 1996-19-1996-23; bone lots 1996-12 and 1996-36-1996-38.

I thank Dr. Lynn Snyder for her analysis of the zoological material collected during the 1996 excavation season.

<sup>&</sup>lt;sup>14</sup> Coins 1996-182, 1996-198, and 1996-201 are Latin Imitatives (A.D. 1204-1261). Coin 1996-199 may also be a Latin Imitative; it is badly damaged, however.

The cooking ware is represented by two largely whole stew pots with low, faceted rims; one may have had a flat base. These are of a form transitional in Corinth between the 12th-century Byzantine cooking shapes and the tall-necked Frankish pots.

The coarse and semicoarse wares are also typical of the period. The bowls with flat bottoms are carefully thrown; the plain pitchers, both round mouthed and trefoil, are without matt-painted decoration.

Pits 1996-3 and 1996-4 differ only slightly in their contents from pit 1996-5. In fact, a number of major cross-joins between pits 1996-3 and 1996-4 provided one pot, C-1996-30, with about half of its original wall. This suggests contemporaneity for the filling of the two pits or at least that material in those two pits came from a common disposal heap.

#### **INVENTORIED MATERIAL FROM PIT 1996-4**

**45.** Pedestal cup with sgraffito decoration Pl. 14 C-1996-29. H. 0.082, est. Diam. of lip 0.12 m. Fine, light pinkish tan clay with frequent voids, sparkling and white inclusions. *Ca.* 5YR 5/4.

Foot 0.06 m wide with hollow pedestal contracting to 0.032 m at bottom of bowl. Hemispherical body with vertical tapered lip.

Thin, creamish slip on interior and exterior; heavier pinkish slip (second coat?) on interior and over lip. Sgraffito decoration on interior of bowl consists of six petals with dotted central vein, radiating from central floor. Pendent triangles between tips of leaves hanging from band of four circumference lines below lip. Each triangle decorated with sgraffito "6", spiral sgraffito line around the exterior rim. Clear glazed on interior and on exterior of rim just below lip.

**46.** Green paint-decorated bowl Pl. 15

C-1996-42. H. 0.069, Diam. of rim 0.158 m. Medium fine, reddish tan clay with sparkling inclusions, occasional large and small white inclusions and voids. *Ca.* 3.5YR 6/5.

Ovoid bowl thrown with flat, heavy bottom; base shaped by cutting into undersurface and lower wall. Undersurface 0.015 m wide scooped out while on wheel, leaving small central nipple; channel cut on lower wall articulates base from wall. Shaping probably done when clay was near to bone dry, causing rough surface. Almost vertical, tapered lip.

Green painted band on inside of rim with pendent half circles from which the paint has dripped; drip on central floor. Interior covered with slightly greenish clear glaze, dripping down exterior body wall.

47. Pedestal bowl, slip decorated, green glaze

C-1996-30. H. 0.152; max. Diam. of rim 0.262 m. Light-brown clay going to gray around bowl floor. Light-brown, cream, and medium-sized lime inclusions, some minuscule sparkling inclusions. Clay is rough at break. Exterior wall 3.5YR 6/5.

Low, flaring pedestal contracts to 0.081 m, then meets wide ovoid bowl in continuous profile; inset rim tapers to lip but is straight flaring on inside. Lower body wall 0.016 m thick. Interior floor preserves potting spiral. Pair of drilled holes on upper body below rim, perhaps for cord or thong to attach lid or to hang pot on wall.

Interior wall slip decorated on raw clay with vertical strokes of slip across rim and down upper wall; at mid wall, careless slip loops. Whole of interior green glazed but applied in two coats over floor. Glaze overlaps lip onto upper half of rim on exterior.

Sherds from pit 1996-3 join to 47.

**48.** Plate, slip decorated, green glaze Pl. 15 painted

C-1996-36. H. 0.067; est. max. Diam. 0.238 m. Clay same as **47**.

Pared ring foot; slightly concave body flares to rim that is slightly articulated on outside. At mid wall, concentric row of small circles in slip; on upper wall overlapping crescents in slip. Exterior reserved except for single line of glaze drip from lip. Greenglaze dash over central floor, concentric band of green glaze at mid floor, second band around inside of rim and over lip.

The 1.88 kg of slag in pit 1996-6 contrast with the lack of slag in the other three pits and tie it more closely with the deep ash-and-slag fill that overlies the early earth floor of room 3. Pit 1996-6 contained two drip-glazed bowls, a heavy Protomaiolica bowl with blue decoration on the rim, and one stewpot with medium-high, vertical folded rim, a sign of the third quarter of the 13th century; by the fourth quarter the neck becomes noticeably taller. Among the coarse wares is a matt-painted amphora with folded rim, of a type that is contemporary with the stewpot. The pit also contained two bronzes of William Villehardouin, coins 1996-118 and 1996-127, struck in A.D. 1250 or later; these, along with the latest pottery, suggest a date within the third quarter of the 13th century for the filling of the pit.

In its second phase room 3 may have served as an ironmonger's workshop. Although there is a deep accumulation of ash and a noticeable amount of slag, from the amount of slag the shop appears not to have had a long life. The accumulation of gray ash streaks, charcoal, and iron slag overlaid pits 1996-3 through 1996-6. All together this fill was 0.70–0.90 m deep. Pit 1996-1 was dug from the top of the ash. Unfortunately the pit contained only three coins, the latest of which is a bronze, coin 1996-36, minted in A.D. 1350 or later by William Villehardouin.

Pit 1996-1 was sealed by a packed-earth floor, then overbuilt by a curved wall contemporary with the water channel that drained into the garden of Unit 1 and into pit 1996-10 on the east side of the north–south road. 16

## **INVENTORIED MATERIAL FROM PIT 1996-1**

**49.** Protomaiolica RMR-ware bowl Pl. 15 with bird

C-1996-7. H. 0.086, Diam. of foot 0.059, est. Diam. of lip 0.245 m.

Fine, pinkish buff clay with rare white and fine sparkling inclusions. At its lightest, 5YR 7.5/4.

Vertical ring foot, squared resting surface, flat undersurface, convex-flaring body rising at ca. 45 degrees; upper wall turns nearly to the vertical at height of 0.055 m. Horizontally outturned rim, downturned at lip. On center of floor, bird to right with body striped diagonally in brown; vertical lines at base of tail, long tail feathers with rounded tips;

half loops of green paint in field, black circumference line at offset with wall, wide red-brown band and black line; on rim, grouped black strokes and green dabs. Clear glaze over interior, some drippings on exterior.

For variations in this design, see C-36-988 and C-1986-44; the latter is probably later than C-1996-7. For C-1986-44, see Sanders 1987, no. 7, p. 171, pl. 23.

50. Painted sgraffito plate

Pl. 15

C-1996-6. Est. Diam. of rim 0.271 m. Moderately coarse, red clay with voids and scattered white inclusions. 5YR 6/6.

<sup>&</sup>lt;sup>15</sup> For shape, see Williams and Zervos 1992, no. 53, p. 147, pl. 35:a. Although the bottom half of the amphora is missing (the example is preserved for a height of 0.345 m), the 1996 example is probably mid-sized. Two spirals in matt paint decorate each side of the shoulder between strap handles. Handles have diagonal stripe decoration.

<sup>&</sup>lt;sup>16</sup> For pit 1996-10, see p. 33 above and note 13, also pp. 43, 44 below. The material is stored in pottery lots 1996-19 through 1996-23. The latest coin, a bronze of William Villehardouin, was struck in A.D. 1350 or later.

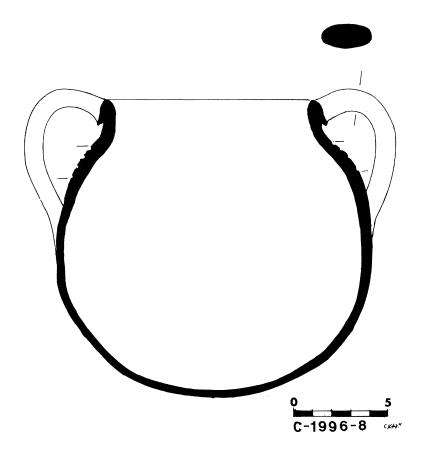


Fig. 9. Stewpot 51

Plate with low ring foot; straight flaring body rises at *ca.* 30 degrees to narrow horizontal rim angled from interior at top of wall; raised lip nicked diagonally before firing.

Pinkish slip on interior, dripping onto exterior. Incised 5-pointed(?) star on floor, its center crossed by three sets of incised lines; five freehand circumference lines on upper body and rim. Splotches of green with row of green dabs along rim covered by clear glaze on interior. Exterior wall reserved with slip dripped in decorative circles.

Plate is fire scarred.

**51.** Stewpot with low folded rim, Fig. 9, Pl. 15 strap handles

C-1996-8. H. to rim 0.162, Diam. of lip 0.125 m.

Reddish brown cooking fabric, fired gray at core. Frequent fine white and sparkling inclusions. Surface (at its lightest) 5YR 5/4 to 5YR 4/3.5, also stained black by fire.

Stewpot with round bottom, globular body that curves into outward folded rim, 0.013 m tall. Fold of rim forms sharp articulation between shoulder and rim. Two vertical handles, oval in section, attached from upper body rising slightly above lip to attach on rim. Shoulder carries four spiral wheel grooves.

## THE BYZANTINE BATH

The excavations of 1994 and 1996 have exposed the eastern side of the core walls of a Byzantine bath building (Fig. 10, Pl. 16) about 6.70 m west of the site where Frankish Unit 2 would later be erected. Construction is tentatively dated to the late 11th century or very early 12th by the analysis of pottery recovered from the foundation trench along the south side of the south core wall of the bath.<sup>17</sup> The bath appears to have been been destroyed by the mid 12th century, or possibly slightly later, but to have stood as a ruin

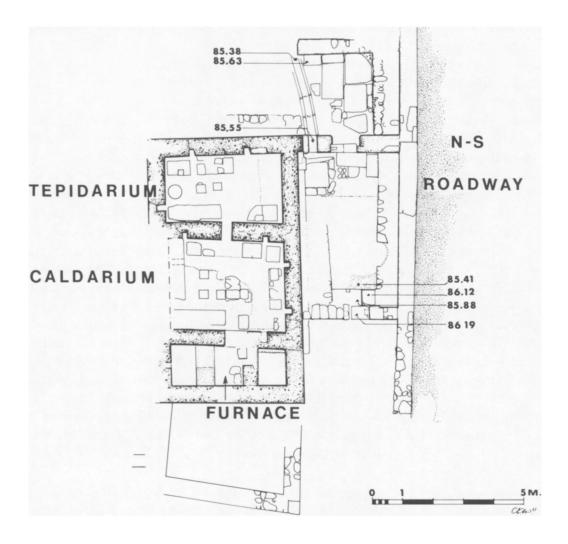


Fig. 10. Plan, Byzantine bath south of Roman Temple E

<sup>&</sup>lt;sup>17</sup> Pottery lot 1996-35.

between Frankish Units 3 and 4 into the 14th century. The south side of the bath, including all of rooms 1 and 2, was overbuilt in the Frankish period by Unit 3. In fact, the removal of the floor of Unit 3 during excavation in 1994 revealed both the top of the north—south core wall of the Byantine bath and, directly under the Frankish floor, the topmost level of debris that is to be associated with the final destruction of the bath.

The core of the Byzantine bath is here defined as those units of the bath that were constructed with precautions against fire in mind and with special engineering features that produced and encouraged the efficient distribution of hot air. The core appears to have been a rectangle, of which only the easternmost 4.50 m are now exposed. Its exterior north—south length from corner to corner is 8.83 m. The defining walls are about 0.60 m thick and are built solidly of soft limestone and tile, well bonded by a white lime mortar with sandy aggregate.

At least five rooms are contained within the core: three small rooms or cubicles, rooms 1, 2, and 3, line the south wall of the core; the two other excavated rooms, 4 and 5, lie to their north. Rooms 4 and 5 are 3.80 m long and have their longitudinal axis extending east—west. Their individual length is equal to the combined width of the three cubicles. Room 4 is 3.00 m wide; the northern one, room 5, is only 2.31 m wide. Both of those rooms had their floors suspended on a columnar hypocaust structure.

The middle cubicle is easily identifiable as a furnace, even though very little of its fabric is preserved above floor level. One block of its furnace floor is still in situ at 85.86 m above sea level and is intensely calcined. At the southeast corner of the furnace, the furnace wall is preserved to a maximum height of 86.01 m above sea level. Its west foundation now is preserved at most to a height of 85.43 m above sea level. Preserved in the south core wall at 2.30 m west of the southeast corner of the building is a vertical joint made by tiles; at 0.39 m farther west vertically stacked tiles make a second vertical joint. Between the two is brick infill. This brick panel stands out from the general wall construction not only because of the use of coursed brick but because of the mortar, which here has an admixture of ophiolite that gives the white mortar a darker or, in places, a pinker tone. Immediately above the brick insulation panel, which is at foundation level in the south wall of the furnace, one might restore a stoking hole that is now destroyed. Unfortunately, a solidly built tower with earth-filled interior was constructed against the exterior face of this south wall after the bath went out of use, apparently within the second quarter of the 12th century. The construction of the tower eliminated all traces of the earlier stoking yard that would have been outside the core, south of the furnace. 19

<sup>&</sup>lt;sup>18</sup> Pottery from the ashy fill of the hypocaust of room 4 is stored in lots 1996-2, 1996-65, and 1996-6–1996-9. Two inventoried sherds include part of a slip-painted light-on-dark plate (C-1996-47) and a sherd with geometric design executed in a rather loose sgraffito style. From this fill also were recovered coin 1996-24, a Roman silver of G. Valerius Flaccus (82–81 B.C.); coin 1996-30, a Byzantine anonymous follis, Class A2 (A.D. 969–1030); and coin 1996-29 of Alexius I (A.D. 1092–1110).

<sup>&</sup>lt;sup>19</sup> Pottery from the fill above the Byzantine floor (+85.95 m) in the Byzantine tower is stored in pottery lot 1996-61 and is datable into the third quarter of the 12th century. The lot includes two local amphoras with high-swung handles (Fig. 11), also two others of similar design, which are smaller and may be fractional amphoras. All four may be made of local clay. All have a convex rim crowning a conical neck; although somewhat similar in exterior profile to the 13th-century export amphora from pit 1996-10 (Fig. 4), the

The functions of the two cubicles that flank the furnace are less easily identifiable than is that of the furnace itself. The easternmost cubicle has an interior east—west dimension of 0.92–0.98 m at the preserved top of the wall and a north—south dimension of 1.29 m. Below the preserved top of the north foundation, at an elevation of 85.38 m above sea level, runs a rough ledge 0.10 m wide. This has no significance for the design of the room other than defining the level to which an earlier, lower wall had been truncated in order that the Byzantine builders could erect their bath wall on it. The west foundation wall of the cubicle has a ledge along its east face, at an elevation of +84.83 m. This lower ledge is close to the bottom of the foundation and appears be no more than a footing for the wall above. The cubicle may have contained a plunge or basin, or it may have served as a reservoir for water that was to be heated by the adjacent furnace. The latter theory seems possible because a horizontal duct 0.15 m wide exists 0.43 m south of the northeast corner of the furnace; it apparently connected the furnace to cubicle 3. No subflooring, or marble veneer, or other evidence, however, was discovered during excavation of the cubicle to support the restoration here of a waterproof basin or reservoir.

The western cubicle measures 2.19–2.20 m east—west by 1.30 m north—south. This also preserves no evidence for a floor, but its western wall has built into its foundation a vertical flue that rises to the preserved top of that wall (+86.054 m). The north wall of the cubicle has a roughly horizontal ledge projecting 0.07 m from its south face; this may attest to a floor for that room (at +84.83 m) that had an air space under it, although no venting system, except the one vertical channel, is preserved for the circulation of air from the furnace. Vents or ducts could have existed, however, between furnace and cubicle, for the partition wall here is destroyed at least to a level of +85.51 m, or 0.35 m below the furnace floor.

12th-century examples have an interior rim wall that is distinctly concave. None of the 13th-century examples has this special feature.

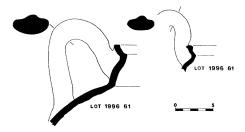


Fig. 11. Amphoras with high-swung handles, pottery lot 1996-61

Pottery from the foundation trench for the south wall of the tower is stored in pottery lot 1996-64 and is datable within the first third of the 12th century. In the same fill were coins 1996-32 and 1996-33, both Byzantine anonymous folles, Class A1, datable between A.D. 969 and 1030. Pottery from the foundation trench along the east side of the tower, stored in pottery lot 1996-58, is datable, less precisely, within the first half of the 12th century.

Room 4, apparently the caldarium of the bath, has its hypocaust floor between 85.74 m and 85.62 m above sea level; surprisingly, this is only a crust of earth packed over a fill of tile rubble. The fill, without further reinforcement, supports the hypocaust columns. The hypocaust columns are constructed of square tiles, ca. 0.20 m on a side in two eastwest rows; where fully preserved, the columns rise to a maximum height of +86.23 m. Hypocaust walls, 0.60 m thick, rise around the sides of the room only to support the flooring at its edge. These hypocaust walls are separated from the load-bearing structural walls by a space ca. 0.14 m wide.

Even though all wall veneer has been stripped away above the hypocaust of room 4, it is evident that Roman principles for intensifying the heat level in the caldarium were employed by circulating hot air between the structural wall and its veneer. Separators, simple short clay tubes 0.074 m long, that kept the veneer clear of the wall have been found in the debris of room 4.20 Draft for the circulation of the hot air within the hypocaust was insured by vertical channels built within the walls. These are preserved from the level of the hypocaust floor and rise vertically to the preserved tops of the east, north, and west walls of room 4. They probably would have vented the hot air directly through the ceiling. The channels are all about 0.16 m wide and penetrate 0.20–0.23 m into the wall.

Room 5 is probably to be identified as a tepidarium, both because the hot air of the furnace had to pass through room 4 before reaching room 5 and because room 5 has only three vertical vents in its walls. Two are placed within the north wall, one in the west wall. Only one row of columns was used in this hypocaust, placed on its longitudinal axis. The hypocaust walling stands against three of its walls, interrupted, as is the custom, wherever a flue is found in the structural wall behind. The fourth, or east, wall has a trace of hypocaust walling in its southeast corner, but the building has been badly pillaged along the inside face of the east wall; the subsidiary wall now is missing along almost its full length.

The Byzantine bath appears to have been built upon Roman colonial walls that possibly belong to an earlier bath. The earlier walls and floors are quite evident, but it will take further excavation to establish the chronology and determine the full plan of the underlying building. At the moment certain elements can be identified that place the date of construction within the early Imperial period. Various alterations attested within the Roman building suggest that it may have operated into the 5th or 6th century after Christ.

The visible Roman remains include a north-south wall that lies partially hidden under the east core wall of the Byzantine bath. Its east face projects eastward 0.17–0.22 m from the face of the Byzantine wall that was superimposed upon it. The north end of this wall is also the northeast corner of the core of the Byzantine bath. The threshold of a doorway in the Roman wall, at an elevation of +85.59 m, lies between 1.11 m and ca. 1.97 m south of the north end of the Roman wall. The wall extends southward from its north end for 7.15 m, where it forms a corner with a wall running westward; this east-west wall serves as a foundation for the south wall of Byzantine room 4. It can also be seen protruding slightly from the south face of the north foundation of cubicle 3. At 1.37 m south of the corner made by these two walls is an east-west wall extending eastward and visible for 3.55 m, until it disappears under the roadway west of Frankish Unit 1. Abutting the north face

<sup>&</sup>lt;sup>20</sup> FM-1996-1. Max. Diam. of tube 0.064 m.

of this second east—west wall, preserved at a maximum of 85.864 m above sea level, is terracotta diamond-brick paving on a cement bed. The paving is 85.57 m above sea level and may have served as the bottom of a pool or as the floor of an outdoor court. South of the southernmost east—west wall is a drain flowing due south, apparently originally built to pass through the east—west wall and drain the diamond-brick surface.<sup>21</sup>

Little else should be said about the Roman remains that exist under the Byzantine bath until further excavation produces a clearer picture of the building.

## NOTES ON CHRONOLOGY

The archaeological evidence for the major destruction of Units 1 and 5 and, less conclusively, of Units 2, 3, and 4 suggests that the general devastation may have been caused by earthquake rather than by enemy action, that is, the Catalan attack of A.D. 1312.<sup>22</sup> The Catalan attack may have caused great loss of human life and the looting of valuables, perhaps also the killing of farm animals and the devastation of crops, but whether or not the Catalans were willing to spend time knocking over porticos and tearing down walls and roofs is another question.

An earthquake is attested for Corinth in or around A.D. 1300.<sup>23</sup> Rebuilding after a natural disaster, such as an earthquake, may explain the massive pottery dump covering the room in Unit 3 excavated in 1986 and the stratum of dumped pottery and building debris tipped into room 5 of Unit 2.<sup>24</sup> In both cases discarded pottery appears to have been part of a well-organized clean-up after a catastrophe. It seems likely that the earlier floor of room 6 of Unit 2 was buried at this time. Also, the east stoa of the graveled court east of Unit 1 shows evidence that some of its columns were reset. All of this may have been remedial activity in answer to the damage inflicted by the earthquake of about A.D. 1300.

Even if the quake registered high on the Richter Scale, the town appears to have recovered rapidly, for in 1305 Philip of Savoy and Isabel Villehardouin selected Corinth as the site for a general parliament and joust, where they hosted over a thousand persons. The event lasted for twenty days.<sup>25</sup>

The Catalans struck in 1312, and at about that time Corinth appears to have been shaken by another earthquake, apparently of major proportions. Columns along the

<sup>&</sup>lt;sup>21</sup> Little datable pottery was recovered in the stratum that directly covered the drain. Sherds are approximately datable between the 4th and the 6th centuries after Christ. NB 872, basket 67.

<sup>&</sup>lt;sup>22</sup> Setton 1975, p. 25. See also Regestum Clementis Papae V, IX, 1888, no. 8597, p. 238.

<sup>&</sup>lt;sup>23</sup> Euaggelatou-Notara 1993, p. 1406.

<sup>&</sup>lt;sup>24</sup> Williams and Zervos 1987, pp. 159–163; Williams and Zervos 1993, p. 12, fig. 4. For the section expanded, see Williams and Zervos 1996, fig. 9. The topmost of the two clay floors isolated in room 5 is covered by a heavy layer of architectural debris of the end of the 13th and, possibly, of the early 14th century. This layer is purposeful clean-up. Although originally not associated with reconstruction after an earthquake, the dump has the quality of a purposeful operation directed with a plan, rather than a half-hearted cleaning-out of fallen debris, as is distinguished in Unit 1, where, as the walls had fallen on an earth floor, the debris was largely ignored or covered.

<sup>&</sup>lt;sup>25</sup> Miller 1908, pp. 202–204.

east side of the graveled square tumbled in a line toward the north.<sup>26</sup> The columns of the western colonnade, along the façade of Units 1 and 5, fell toward the northwest or southwest and were surrounded, in some places buried, by the debris of fallen walls. The full depth of the debris can be seen in Plate 4:a; in Plate 4:b some debris has been removed to reveal the lower quarter of the south column from the portico east of Unit 5. This type of destruction debris, found generally throughout the area southeast of Temple E lying as it had collapsed, covered floors and roadways scattered with coins that had been minted as late as the early 14th century.<sup>27</sup> Some of the issues only started in the 14th century, but even the latest issue terminates by A.D. 1313. Apparently the combination of Catalans and earthquake was too powerful to allow the Corinthian Franks to restore Units 1 and 2 to their pre-earthquake form and use. Some effort at rebuilding can be seen within the ruins, but those efforts appear to have been weak and ineffectual, and, except for the reconstruction and reuse of room 7, Unit 1 was almost immediately abandoned.

One element excavated in the area southeast of Temple E does not appear to fit into the chronology that is outlined above. That is a vaulted chamber built over the destroyed west wall of room 12 in Unit 1.<sup>28</sup> The east wall of the vaulted chamber is built over the exterior west wall of Unit 1 and out of material scavenged, apparently, from Unit 1. The chamber was found almost totally filled with pottery and kitchen debris. Some of the pottery was still intact; other pieces were broken but complete and could be mended from two or only a few sherds. Certain forms of pottery, such as the gridiron bowl, were represented by matching sets. The faunal debris, different in quality from that of the pits discussed in this article by Dr. Snyder (see pp. 43–46), included a normal sample of goat/sheep and cow but also echinus spines and eggshells, the sort of material that can be expected to have been thrown out directly from the kitchen.

The level of elegance of the table ware, the amount of pottery discarded all at one time, and the quality of the garbage suggests that the kitchen that produced the rubbish was upper class. The debris filled a small cellar to near the top of the vault and appears to have been deposited at one time; it is not a stratified deposit that was laid down over weeks or months. The cellar was built after A.D. 1312, yet the pottery shows no evidence of being later in style than the mid 14th century, if that late. In other words, the earliest pottery within the assemblage probably cannot be over thirty-five years old. The remains may attest to an effort to clean out what was thought to be a polluted kitchen. Is it possible that the deposit resulted from some sort of panicked reaction to plague, such as the Black Death, passing through Corinth in 1346–1347?<sup>29</sup> Other theories are possible, perhaps even more probable (for instance, the deposit could be considered to have been the sudden elimination of a cupboard of heirlooms), but the pottery was certainly discarded under peculiar conditions before the middle of the 14th century.

<sup>&</sup>lt;sup>26</sup> For the stoa east of Unit 5, where columns were found apparently as they had fallen, note Williams and Zervos 1990, fig. 3 and pl. 67:b.

<sup>&</sup>lt;sup>27</sup> Williams and Zervos 1992, pp. 139–140, pl. 40:b.

Williams and Zervos 1995, pp. 6–10, 24–38. A detailed analysis of the faunal contents of this chamber will appear later.

No evidence exists in the literature that the Black Death struck Corinth. We know, however, that plague traveled by boats from the Black Sea through Constantinople and first arrived in Europe at the port of Amalfi in 1347.

# **APPENDIX**

# IDENTIFICATION OF TABLE REMAINS AND BUTCHERING DEBRIS OF THE FRANKISH PERIOD

Approximately 60 kg of animal-bone debris were recovered from seven features of the Frankish period excavated southeast of Temple E.<sup>30</sup> These dumped fills are located in or near room 3 of Unit 3 (pits 1996-1, 1996-3–1996-6; Pl. 14:a), in the garden area of Unit 1 (pit 1996-10), and to the east of the Byzantine church of Unit 2 (manhole 1934-13). The nature of this debris indicates that, whatever their original purposes, these features eventually became the repositories for discarded butchering debris, general surface debris (including the partial remains of such animals as cats, dogs, and especially in the deeper manhole, horses or donkeys that died in the vicinity), and food remains from kitchens or dining areas.

Most of these features contained a mixture of both butchering castoffs, including sawn horn cores, broken skull fragments, lower legs, feet, and hooves (many of which preserve one or multiple chop marks), and meat or food debris consisting of upper limb bones and vertebrae. This last shows a range of chop and cut marks indicating butchering plus further processing during cooking and consumption. Pit 1996-10, located in the northwest corner of the garden of Unit 1, however, produced a very different and informative assemblage of bone debris. Perhaps because of its more specialized use within the walled garden area, in its lowest levels pit 1996-10 appears to have been the repository of table scraps that came directly from a dining area.<sup>31</sup> The absence of heavier butchering debris or more general surface-type garbage also indicates that the discarded material in the lower levels of pit 1996-10 may have accumulated relatively rapidly, isolating the table debris within that fill. The restricted nature of this deposit therefore makes it possible to reconstruct tentatively several individual cuts of meat or portions served at a Frankish table in Corinth.

## Ргт 1996-3

Pit 1996-3 contained approximately 2.6 kg of animal bone, representing both butchering castoffs and kitchen debris (bones of sheep and goat, pig, and cow, 165 specimens). Cattle bones are relatively rare (12 elements), constituting only 7.4% of the remains of the major meat animals (sheep, goat, pig, and cow) in the deposit. The pit contains a mixture of primary meat-bearing or food bones (vertebrae, ribs, upper limb bones) and apparent butchering debris (cranial fragments, lower legs, and foot bones). Food bones (108 specimens, 66.7%) make up the majority of this deposit, butchering debris (54 specimens, 33.3%), the remainder. Several equid bones (mandible fragments and a

<sup>&</sup>lt;sup>30</sup> This preliminary assessment of the animal-bone debris from several bothroi and manholes excavated during the 1996 field season was undertaken in Corinth while the author was a summer associate member of the Wiener Laboratory of the American School of Classical Studies. This work is a portion of an ongoing study of the larger Byzantine and Frankish-period faunal assemblages. I wish to thank Dr. Charles K. Williams II for the opportunity to contribute to his investigation of the Frankish complex at Ancient Corinth, and the Wiener Laboratory of the American School for its continuing support of this work.

Note that the room that defines the south side of the garden had a hearth built against its north wall in both its earlier and later Frankish phases: Williams and Zervos 1993, pp. 7–8, here called "Annex". For the earlier phase with hearth, see Williams and Zervos 1994, p. 35, fig. 8 on p. 33.

broken humerus) and six dog bones (a mandible, 2 ulnae, and 3 right metacarpals) indicate that nonfood remains were also deposited in the pit.

### Ріт 1996-4

Pit 1996-4 contained approximately 3.0 kg of bone debris. As in pit 1996-3, the bones of sheep and goat, pig, and cow (214 specimens) are most common. The proportions of food remains (129 specimens, 60.3%) and butchering castoffs (85 specimens, 39.7%) are similar to those in pit 1996-3. Six bird bones representing at least two domestic-fowl-sized animals are probably food remains, while two fragments of equid innominate and one third phalange (hoof) indicate that some nonfood bone debris also was discarded within the pit.

#### Ргт 1996-5

A limited amount of bone (ca. 0.25 kg) was recovered from pit 1996-5. The bone debris in this pit differs from that in pits 1996-3, 1996-4, and 1996-6. Its contents were restricted to the bones of sheep, goat, and pig (39 specimens) and primarily represent food debris (35 specimens, 89.7%).

## Ргт 1996-6

As in pit 1996-5, this pit contained a limited number of animal bones. Thirteen specimens weighing approximately 0.1 kg were recovered, all remains of sheep, goat, and pig. In this pit, however, castoffs from butchering (7 specimens) and food debris (8 specimens) were about evenly represented.

#### Ргт 1996-10

The animal bones from pit 1996-10 are unique in that virtually the whole of the deposit, with the exception of the well-preserved remains of one adult cat, appears to represent table debris. In fact, in this pit the remains of individual meat cuts and perhaps meals can be reconstructed. This unusual circumstance appears to be due to the rapid filling of the lower levels of the pit and perhaps to its isolated location in the garden, where it was less accessible as a repository for general surface garbage and butchering debris.

Three levels containing animal bones were excavated within the pit. The second level from the top, between Levels 1 and 3, contained only earth and architectural destruction debris. In the lowest, Level 4, the remains of at least three meals can be distinguished. A sheep or goat shoulder is represented by four thoracic vertebrae with associated right scapula and ribs (Pl. 17:b). The vertebrae have been chopped or sawn vertically through the center or margin of the vertebral body to divide the carcass and to produce a rack of vertebrae and ribs. In addition, the ribs themselves show partial chop marks and breakage at about mid-shaft, indicating that the rack was further subdivided into portions during preparation or serving. Owing to the excellent preservation and restricted nature of this deposit, it was possible to reconstruct three of the broken ribs, indicating that all portions were discarded in the pit after consumption.

A second meat dish or meal is indicated by a group of beef-rib shaft segments (Pl. 17:d), most of which exhibit heavy chop marks at both ends of the shaft segment. Although several

of the ribs now have unevenly broken margins, all appear to be from a single rib slab, originally cut or chopped to approximately 15 cm in height. A third meal, of young sheep or goat, is represented by cranial parts, ribs, and a left scapula. The deciduous teeth present in the maxillae of the skull indicate an animal approximately six to nine months old at slaughter.

In Level 3, above Level 4, a second lamb or kid is represented by unfused skull segments, left and right mandibles, ribs, and a femur. The deciduous teeth in the mandibles indicate an animal less than three months old at slaughter (Pl. 17:a). A shaft segment of beef rib in this level is similar in size to those from Level 4 and may be part of the same beef-rib plate or slab. A probable pork roast is indicated by a left femur diaphysis which has been chopped at both ends to produce a segment approximately 12 cm in length. Fine parallel cut marks at mid-diaphysis on this element indicate that it was likely to have been prepared as a roast and that individual meat portions were subsequently cut from it. Finally, in this level the remains of as many as five birds, probably domestic fowl, are represented. All appear to have been dressed and served in a conventional manner, since no skull parts, neck vertebrae, or foot bones were recovered.

Bone debris from Level 1 of pit 1996-10, in contrast to the lower levels of the deposit, appears to represent a mixture of food remains and more general surface garbage and butchering debris. Lamb or kid is again represented by cranial fragments, mandibles, and several postcranial elements. In contrast to the lower levels, however, where 95% of the bone deposit consisted of food or table debris, in this upper level nearly one third of the specimens (15 elements, 32.6%) were indicative of butchering or possible manufacturing castoffs. This material included a first phalange or toe bone of a cow, as well as the distal end of a metacarpal or metatarsal, which had been cleanly sawn through the diaphysis, and a large core fragment of a cattle horn, which also had been sawn free of the skull (Pl. 17:c). The presence of food remains plus more general butchering debris and possible manufacturing scraps suggests that by the time the upper portion of the pit was filled its usage had changed, perhaps reflecting a change in the use of the garden area and buildings surrounding it.

#### Manhole 1934-13

This deep feature contained nearly 45 kg of animal bone.<sup>32</sup> This bone debris appears to be a mixture of both table or food remains (1026 specimens, 58.6%) and more general surface and butchering debris (746 specimens, 41.4%). The deposit differs from the contents of pits 1996-3–1996-6 in the relative proportion of cattle bones recovered (342 specimens, 19.0%) but is similar to pit 1996-10, where cattle bones (20 specimens) represent 18.7% of the large domestic meat-animal assemblage. The presence, however, of numerous broken equid elements (20 specimens) and scattered dog (36 elements) and cat (141 elements, representing at least nine animals) bones indicates that in contrast to pit 1996-10 this manhole was also used for more general refuse disposal. Also in contrast to the bone material in the garden pit, many of the bones in manhole 1934-13 show the

<sup>&</sup>lt;sup>32</sup> For the original description of manhole 1934-13, see note 10 above. For supplementary information, see p. 25 above. Human bones from the fill of this feature are discussed on pp. 30-31.

marks of animal gnawing on their surfaces and broken edges, suggesting that they may initially have been discarded on a ground surface where they were accessible to dogs, then later gathered up and thrown into the open shaft of the manhole.

#### Ріт 1996-1

This feature, also located within Unit 3, is similar to pits 1996-3, 1996-4, and 1996-6 in the proportions of meat or food remains (158 elements, 69.0%) and butchering debris (71 elements, 31.0%) it contained. It is also similar in the relatively low number of cattle bones present (5 specimens, 2.2%); pits 1996-3–1996-6 contained a total of 24 cattle bones (5.6%). This contrasts sharply with pit 1996-10, where cattle bones (20 specimens) made up nearly 19.7% of the large domestic meat-animal assemblage, and to manhole 1934-13, in which 342 cattle bones represented 19.0% of the large-animal assemblage.

A unique feature of this deposit is the presence of a large assemblage of limpet shells (*Patella sp.*, 296 specimens), as well as the cranial elements of a single large fish, still to be identified. Pit 1996-1 is the only one of these features to have had such a shell deposit and, with the exception of four elements found in manhole 1934-13, the only one to contain fish remains. Only two equid bones, one cat bone, and no dog bones were found in this feature, indicating that it was not used extensively as a repository for general surface garbage as was manhole 1934-13.

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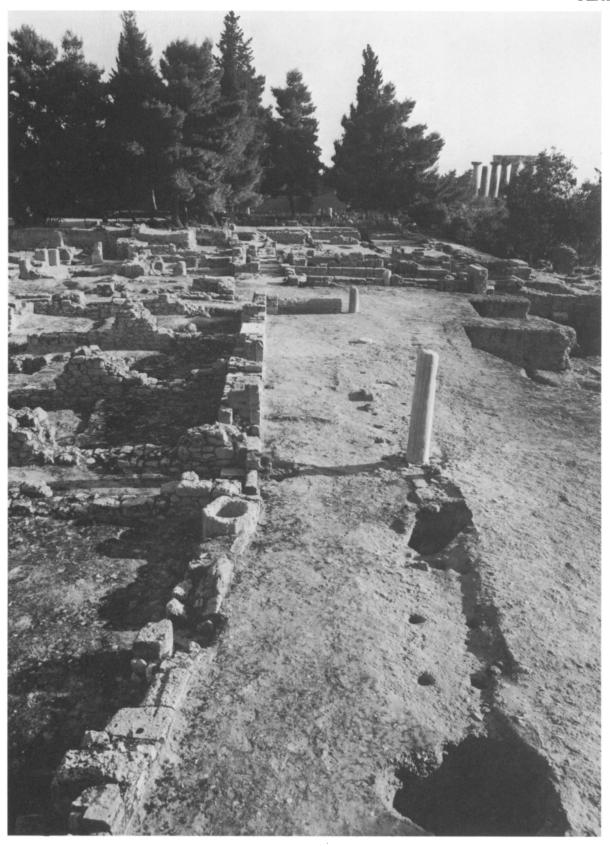
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CHARLES K. WILLIAMS II

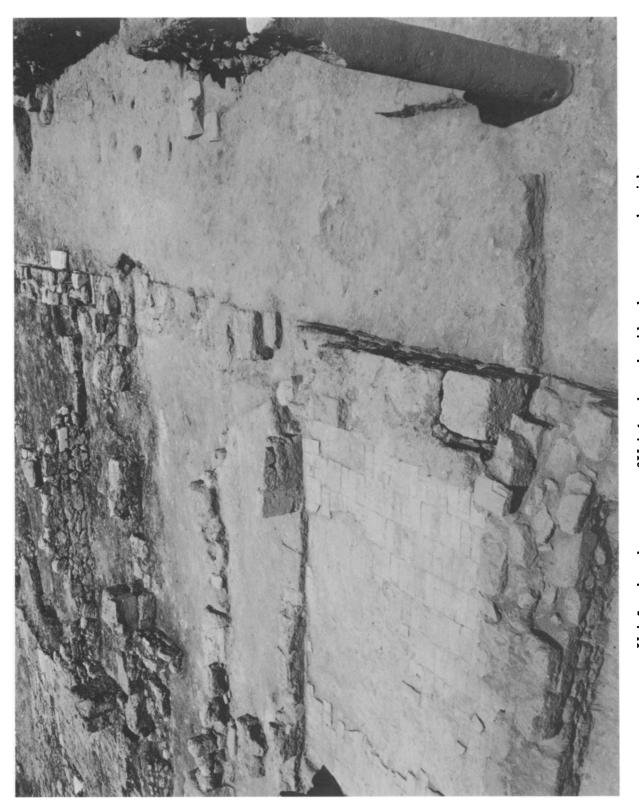
CORINTH EXCAVATIONS c/o American School of Classical Studies 54 Souidias Street GR-106 76 Athens Greece



General view of east façade and colonnade of Unit 1. From south
CHARLES K. WILLIAMS II, ETHNE BARNES, AND LYNN M. SNYDER: FRANKISH CORINTH: 1996



Unit 5, during excavation, showing tile floor and destruction debris at south end of colonnade. From north CHARLES K. WILLIAMS II, ETHNE BARNES, AND LYNN M. SNYDER: FRANKISH CORINTH: 1996



CHARLES K. WILLIAMS II, ETHNE BARNES, AND LYNN M. SNYDER: FRANKISH CORINTH: 1996 Unit 5 and southeast corner of Unit 1, colonnade with column reerected at right



a. Unit 5, destruction debris at south end of colonnade. From north



b. Colonnade of Unit 5, lower portion of fallen column under debris. From northeast

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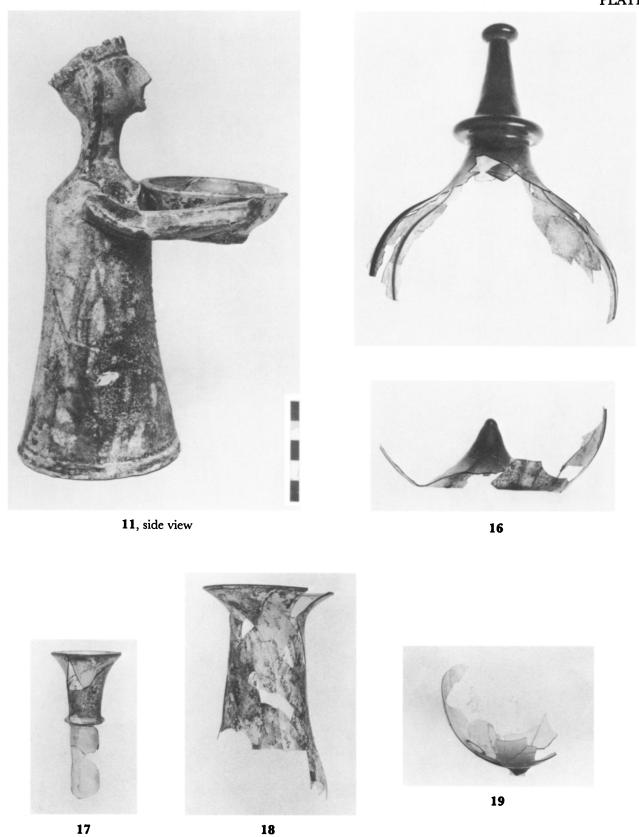


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Charles K. Williams II, Ethne Barnes, and Lynn M. Snyder: Frankish Corinth: 1996

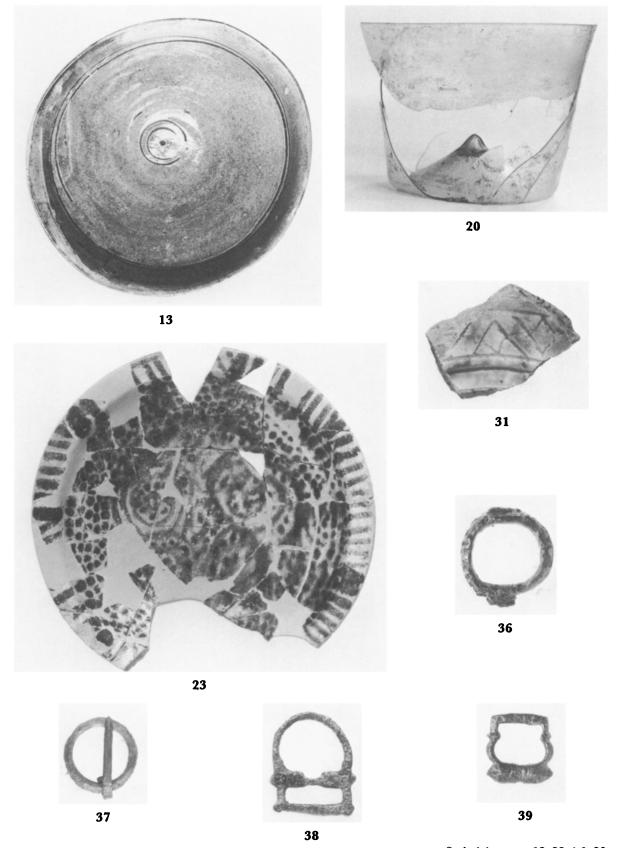


CHARLES K. WILLIAMS II, ETHNE BARNES, AND LYNN M. SNYDER: FRANKISH CORINTH: 1996



Scale 1:3 or as shown

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Scale 1:1, except 13, 23, 1:3; 20, ca. 3:4

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41 and 42



44



Gothic architectural members



43

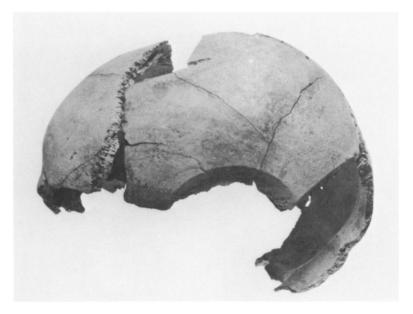
Scale 43, ca. 1:7; 44, 2:9; 35, 1:3; or as shown

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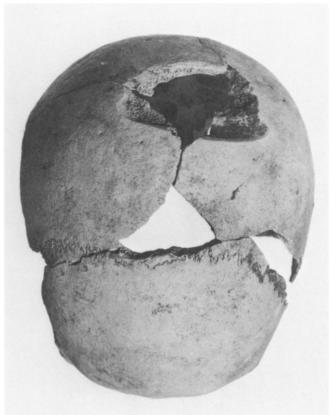


Unit 2, graves 12, 18, 20, and 21 excavated in 1996 in area 4. From northeast Charles K. Williams II, Ethne Barnes, and Lynn M. Snyder: Frankish Corinth: 1996



a. Human skull

Human Bones from Manhole 1934-13



c. Human skull





b. Distal tibia



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d. Distal tibia









e.

Pottery from Pit 1996-3 Scale ca. 1:4



a.



c.



d.



b.



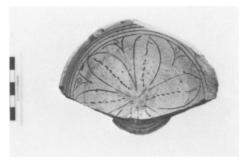
Pottery from Pit 1996-4

Scale a, b, ca. 1:4; c, d, 1:3; e, 2:9

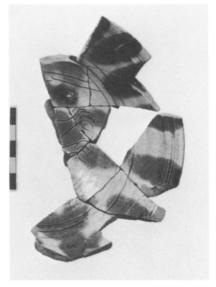
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a. Unit 3, room 3, with pits 1996-3-1996-6 and built storage silo or bin in background. From north



**45** 

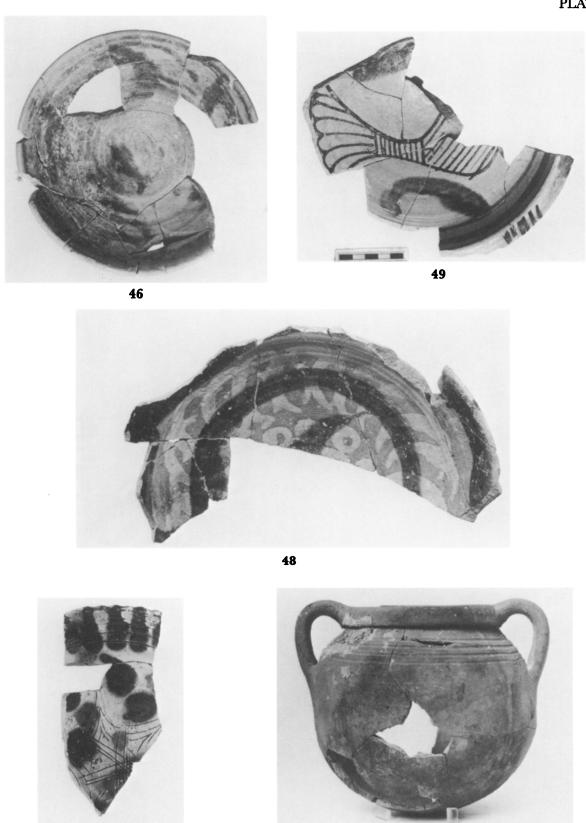


b. Fragmentary pot from pit 1996-4



c. Unit 3, room with hearths; back wall of storage bin at upper left

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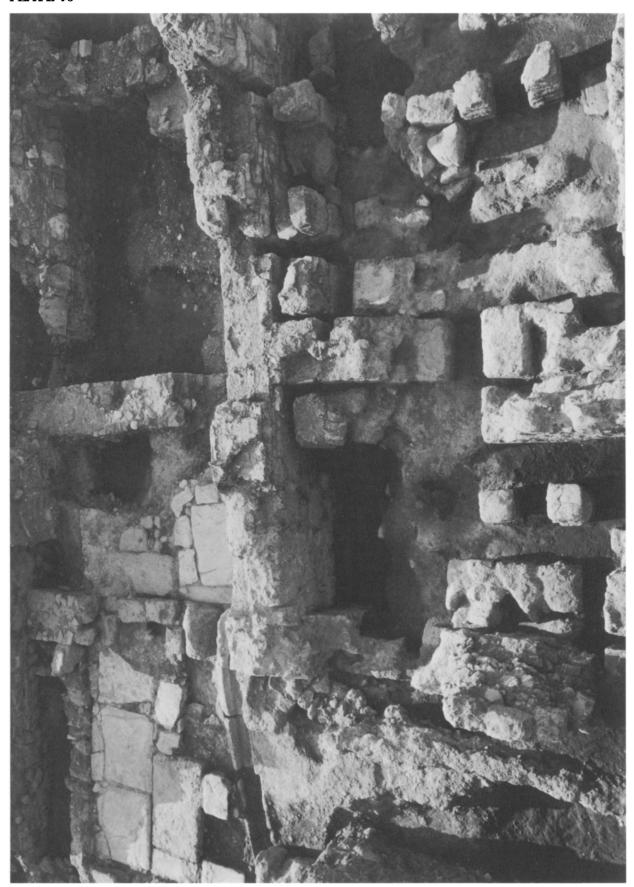


Scale 1:3, except 48, 2:5

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**50** 

51



Byzantine bath: hypocaust system of caldarium (lower right) and tepidarium (front center) CHARLES K. WILLIAMS II, ETHNE BARNES, AND LYNN M. SNYDER: FRANKISH CORINTH: 1996



b. Bone lot 1996-38, Level 4



d. Bone lot 1996-38, Level 4



c. Bone lot 1996-36, Level 1

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Unit 2, Animal Bones from Pit 1996-10