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7

ARCHAIC CORINTHIAN ARCHITECTURE

ca. 600 to 480 B.C.

This article is intended to provide an overview of the architecture of Corinth and the Corinthia from the beginning of the 6th century B.C. to the time of the Persian Wars.[1] For the sake of clarity it is divided into two parts. The first provides a concise summary of the general characteristics of Archaic Corinthian architecture in terms of style, building materials, and methods of construction. The second provides a brief discussion of the individual buildings and other significant constructions dated to the 6th and early 5th centuries. Throughout, the aim is to provide the reader with a guide to previous scholarship and, where appropriate, to supplement and correct previous observations and interpretations.

GENERAL CHARACTERISTICS

The Doric Order

Although Corinth is well known for its early development of monumental architecture in the 7th century B.C., it is not until the 6th century that there is direct evidence in Corinthian architecture for a recognizable architectural order. As in most of the Greek mainland, the order widely adopted in the Corinthia is Doric. In fact, only one Archaic Ionic element has been found at Corinth, a small Ionic capital (A-989), which is more likely to belong to an imported votive column than an Ionic building.[2] The order to which Corinth gives its name, i.e., the Corinthian, did not, of course, develop until well after the Archaic period.[3]

The 6th-century architecture of Corinth reflects the rather sober interpretation of the Doric order characteristic of the northeastern Peloponnese. There are no Cycladic-Ionic details, such as occasionally appear on 6th-century B.C. Athenian buildings,[4] and no features, with the exception of one sofa capital, that are connected with the so-called Achaean or Ionian Sea style evident in the architecture of Corinth's colony at Kerkyra.[5] That the style of Kerkyra's Doric architecture deviates significantly from that of the mother city is important to note, for it shows that the monuments of Archaic Kerkyra, such as the well-known Temple of Artemis, cannot be used to supplement our picture of 6th-century Archaic Corinthian architecture.[6]

1. I thank Charles Williams for the opportunity to work on this material and for discussing with me many points taken up in this study. The photographs for Figs. 7.27, 7.29, and 7.30 were made by Lenio Bartzioti and Ino Ioannidou.

2. L. S. Meritt discusses this capital in her two recent studies of Athenian Ionic capitals. In Meritt *1996, p. 137, pl. 46, she concludes, with regard to the style of the capital, that "some connection with Athens seems obvious, but it remains puzzling"; in Meritt *1993, p. 319, she suggests that it "may also be an Athenian import." I would add that a non-Corinthian origin is suggested by the quality of the limestone, which seems finer than local Corinthian varieties.

3. As is well known, the earliest attested Corinthian column stood in the interior of the Temple of Apollo at Bassai (late 5th century B.C.); *Bassitas* *I, pp. 305–324.

4. Examples of such details on Athenian buildings: the sima associated with the H-architecture (Wiegand *1904, pp. 38–39; Schuchhardt *1935/1936, pp. 1–111); palmette antefixes of Ionic form (Winter *1993, pp. 205, 227, 230–231, pls. 91, 98–99); the Ionic frieze, possibly associated with the Old Temple of Athena (Schrader et al. *1939, pp. 387–399, pls. 198–200; Brouskari *1974, pp. 60–68, figs. 107, 127, 338–347; Ridgway 1993, pp. 395–397); and the Ionic base molding on the antai and walls of the Pre-Persian Parthenon (Hill *1912, pp. 552–553, figs. 18–20).

5. For the "Ionian Sea" style, see Barletta *1990.

6. The independence of Corinthian and Kerkyrean architectural traditions has been emphasized by Williams (1984b, p. 68; 1995, pp. 39–40) and Schwandner (*1985, p. 115, note 156).

Krepidomata

There is little to report concerning the krepidomata of Corinth's early Doric buildings. Only the Temple of Apollo preserves any portion of a proper krepidoma, and even it shows signs of Roman renovation that might have altered the Archaic design (see below, p. 115). One aspect of this krepidoma that is, however, verifiably original, namely, the height of the stylobate, is of considerable interest, for along the west end of the building, where the height can be measured accurately, it increases by 2 cm from the corner to the center of the facade, indicating that the top of the stylobate was designed with the refinement of curvature, attested here for the first time in Greek architecture (the evidence for this curvature is discussed below, p. 113).

To judge from the remains of the Temple of Hera Akraia at Perachora and the Apsidal Building near the Sacred Spring, smaller, nonperipteral Doric buildings at Corinth were not provided with a stepped krepidoma below their side and back walls; the walls rest directly upon a roughly finished socle that only partially emerges above the ground.[7] Unfortunately, the facades of these nonperipteral buildings do not survive, but from the relationship of the interior and exterior ground levels, it is likely that there was only a stylobate at the front of both buildings.[8]

Columns

Besides those columns or column fragments associated with known buildings—the Temple of Apollo and the Great Temple near the Gymnasium, in particular—there are numerous unattributed shafts and capitals from this period, most of which are of the diminutive scale appropriate for small stoas, fountain houses, or naïskoi. Regardless of their size, the column shafts seem usually to have been monolithic.[9] The shafts (and the neckings of capitals) are typically fluted, but often, for the sake of economy, the fluting is limited to the fronts of the shafts.[10] On such half-fluted columns, the backs of the shafts may be either faceted or rounded.[11] Whether fully fluted or not, small column shafts are usually designed as if they had 16 flutes.[12] Larger columns, including those of the Temple of Apollo and the Great Temple near the Gymnasium, have 20 flutes, the usual number in the Classical period.[13]

The carving of the flutes of Archaic columns is variable. In the first half of the 6th century B.C., flutes seem normally to have very shallow circular sections, so that they are barely distinguishable from facets (Fig. 7.1:a).[14] From the mid 6th century B.C. onward, flutes typically have rather deeper circular sections, so that they may more effectively catch the light and create stronger, linear shadows along the length of the column shaft (Fig. 7.1:b).[15] Since the change to the later,

7. For Perachora, see *Perachora* *I, p. 82, pl. 125; Menadier *1995, fig. 4. For the Apsidal Building, see *Corinth* I, vi, pp. 129–134. As C. K. Williams has noted (pers. comm.), Hill's suggestion (*Corinth* I, vi, p. 134) that there may have been a three-stepped krepidoma above the socle of the Apsidal Building is precluded by the elevation of the interior floor.

8. The ground level outside the Apsidal Building is indicated by the finished margin along the top outer edge of the socle; the level inside is indicated by a similar margin along the top inner edge of the socle; see *Corinth* I, vi, pp. 129–133, figs. 73–75.

The interior ground line indicated in Hill's section (*Corinth* I, vi, fig. 75) may be 10 to 15 cm too high. At Perachora, the ground levels are indicated only at the west end of the building: the exterior level, marked by the lower termination of the fine finish and stucco of the visible wall surface, is approximately one course below the interior level, marked by the top of the foundations of the cult-statue base; see *Perachora* *I, p. 82, pl. 125; Menadier *1995, pp. 8, 11, note 10, figs. 4, 11.

9. In the case of some fragmentary shafts at Corinth, it is impossible to be sure whether they were monolithic. There are, however, no positively identifiable column drums at Corinth that can be dated to the Archaic period.

10. Such partial fluting is attested as well on later columns at Corinth: for example, on the in situ column drum of the late-5th- or early-4th-century B.C. colonnade of the North Building (*Corinth* I, p. 213, figs. 145–146). In the Late Archaic period it is attested elsewhere in the columns of the Megarian Treasury at Olympia (*Olympia* *II, pl. XXXVIII).

11. The rear portion is faceted on the single column of the facade of the Underground Shrine (Williams 1978c, p. 69), on a small shaft now lying west of the Sacred Spring (unpublished), and on the necking of one capital, A-1981-3 (Williams 1984b, p. 74, no. 12, fig. 1). The rear portion is rounded on the neckings of three capitals: AM-28, A-450, A-451 (Williams 1984b, pp. 74–75, nos. 11, 13, 14, fig. 1).

12. Only twice—on a capital, AM-28, and on the column shaft of the facade of the Underground Shrine—was a half-fluted column designed as if it had 18 flutes (Williams 1978c, p. 69; 1984b, p. 74, no. 11). It should be noted that Morgan (1937, p. 545) incorrectly reports that the column of the Underground Shrine was designed as if it had 16 flutes.

13. The columns of the Great Temple had 20 flutes (Dinsmoor 1949, p. 106), as did the columns associated with the interior of the Late Archaic Temple of Hera Akraia at Perachora (*Perachora* *I, p. 80, fig. 13; Menadier *1995, pp. 60–61, fig. 71). Before the late 6th century, the smallest columns with 20 flutes have upper diameters of 0.40 to 0.43 m (Williams 1984b, pp. 72, 75, nos. 2, 14). At the end of the 6th or beginning of the 5th century, columns with upper diameters as small as 0.286 m might have 20 flutes (Williams 1984b, p. 74, no. 13).

14. Such shallow fluting is common in the Archaic period. Some examples of buildings outside Corinth with columns fluted in this way: the early-6th-century B.C. Temple of Athena Pronaia in the Marmaria at Delphi (Demangel *1923, pp. 31–32, fig. 15), the early Temple of Aphaia on Aigina (Schwandner *1985, pp. 27, 69, figs. 14, 44, 45), and the North Stoa at the Argive Heraion (Amandry *1952, pp. 226–227).

15. Similar deep circular flutes are common in the latter half of the 6th century B.C. and later. See, for example, the columns of the Doric Treasury and Temple of Athena Pronaia at Delphi (Demangel *1923, p. 10, fig. 15).

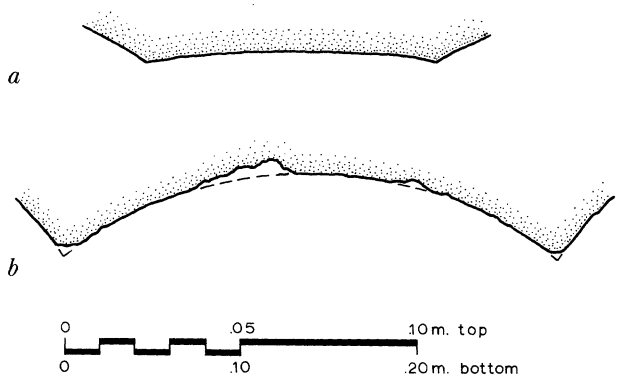

FIGURE 7.1. *Sections of column flutes:*
(a) unidentified column shaft near the Sacred Spring;
(b) column shaft of the Great Temple near the Gymnasium

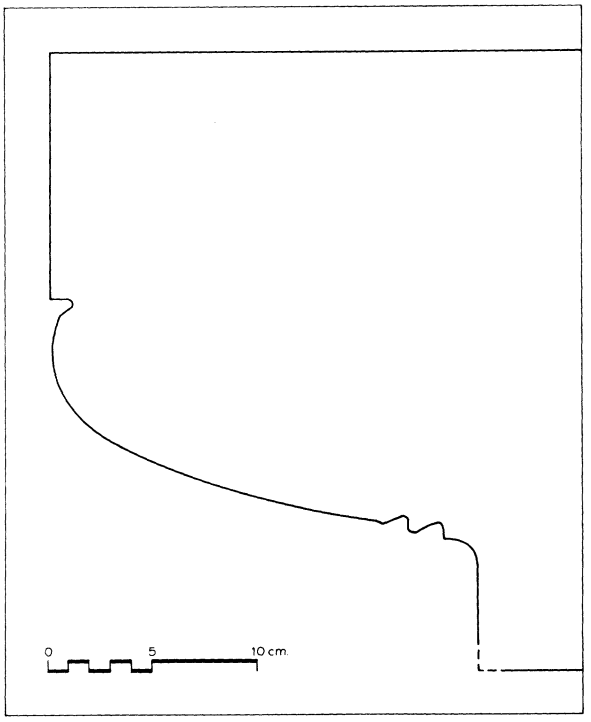

FIGURE 7.2. *Doric column capital AM-27, found at the east end of the Northwest Stoa*

deeper variety of flutes is first attested at Corinth in the columns of the large Temple of Apollo, it is tempting to suggest that the change in flute section was first motivated by the larger scale of this building and the correspondingly greater need to reinforce the visual effect of the fluting of its massive columns. If that is so (and I freely admit that it is beyond proof), the change was soon adopted, as well, for smaller columns. In the Temple of Apollo, where the flutes can be examined over the full height of the columns, the radius of the circle of the flute-section remains more-or-less constant from the bottom to the top of the shaft, indicating that a single circular template was used for each entire flute.

The flutes of Archaic column shafts at Corinth are routinely carried up into the necking of the capitals, but V-shaped necking rings of variable number articulate the juncture of shaft and capital. The necking ring at the joint is comprised of the beveled outer edge of the bottom of the capital and the top of the shaft; the other rings consist of deep grooves carved either on the necking of the capital (as on the columns of the peristyle and cella colonnade of the Temple of Apollo: Fig. 7.34:a)[16] or on the top of the shaft (as on a small column shaft from near the Sacred Spring (Fig. 7.3) and a small fragment of a large shaft, perhaps belonging to a porch column of the Temple of Apollo).[17]

On all extant Archaic capitals from Corinth, the tops of the flutes are separated from the echinus by annulets, usually three in number, though four appear on the large capitals of the Temple of Apollo (Figs. 7.2, 7.34:a).[18] There are no examples of capitals with a leaf necking, like those associated with the so-called Achaian or Ionian Sea style, and none with a hollow beneath the annulets, as on the early capitals from Tiryns and Aigina.[19] On the earliest capitals from Corinth, dating roughly from the second and third

16. For the capitals of the peristyle columns of the Temple of Apollo, which have two and a half necking rings, see *Corinth* I, pl. VII. The profile of the capital of the cella column published by Williams (1984b, no. 7, fig. 1) does not show necking rings, but the accompanying catalogue entry (p. 74) correctly notes that there are one and a half rings. Necking rings (one and a half) also appear on a capital from the Potters' Quarter (KA-1: *Corinth* XV, i, p. 80, fig. 11, pl. 25; Williams 1984b, p. 72, no. 3, fig. 1).

17. The former, which has one and half rings, is mentioned in Williams 1984b, p. 74 (associated there with column capital no. 9); the latter (A-1992-2, unpublished), which has two and half rings, was found in 1992 in a late context south of the museum at Ancient Corinth.

18. Williams, in his study of Corinthian Doric capitals, distinguishes earlier from later 6th-century B.C. capitals on the basis of the profile of the annulets (Williams 1984b, p. 70). He observes: "All of the early capitals, in which the lower echinus is flaring at less than 50 degrees, have step-shaped rings. When, however, the echinus approaches a more erect 60 degrees the annulets are modified and squared at their tips." A look at the accompanying profiles (fig. 1), does not, however, reveal such a neat scheme. AM-27, the second capital in his series, and probably datable to about 580–570 B.C., already has annulets with squared tips, while A-1981-3, which is the twelfth capital, and datable to the late 6th century, still has step-shaped annulets.

19. Schwandner *1985, figs. 72–73. Schwandner (*1985, p. 113, note 155) argues that in the Argolid and the Corinthia columns with a hollow beneath the annulets are earlier than those without. Although this theory might be true, there is as yet no firm evidence to support it. Schwandner's suggestion that the earliest columns in this area were decorated with bronze leaf neckings is also unsupported. Unfluted neckings on columns at the Argive Heraion are thought by him to indicate that bronze neckings were once added to these columns, but there is no indication that anything was ever affixed to the stone.

quarters of the 6th century B.C., the upper ends of the flutes merge with the lowest annulet (Figs. 7.2, 7.34:a), but in Late Archaic examples, the lowest annulet usually projects beyond the top of the flutes, as it does in later Classical capitals (Fig. 7.34:b).

As elsewhere in Greece, the profile of the echinus changes over time, but as Coulton has observed, such changes in the design of capitals are less likely to reflect a continuous evolution than a series of discrete design phases.[20] Within the series of surviving Doric capitals from Corinth, three phases seem obvious: in the first, the echinus has a very broad, rounded profile and is clearly articulated from the abacus above by a groove (Fig. 7.2); in the second, the echinus retains its rounded profile and the groove at the top, but the lower portion of the echinus slopes at a considerably steeper angle (approximately 30–35° from horizontal: Fig. 7.34:a); in the third, the lower portion of the echinus has little or no convexity and slopes at a still steeper angle (about 40–45°), while the upper portion curves continuously into the bottom of the echinus without a distinct groove at the top (Fig. 7.34:b). Although the precise chronology of these phases cannot yet be determined, it seems likely that the first had begun by the second quarter of the 6th century B.C., that the second (which includes the capitals of the Temple of Apollo) had started by mid-century, and that the third had commenced by the last decade of the 6th century and continued into the first quarter of the 5th.

Little can be said concerning the overall proportions of the columns of Archaic Corinthian buildings, since only the columns of the Temple of Apollo preserve their full dimensions. As is common on mainland Greek peripteral temples of the 6th century B.C., the diameters of the columns on the facades of the Temple of Apollo are greater than those of the flanks, presumably in response to the larger intercolumniations of the facade colonnade. The relative height of these columns—equal to 4.43 lower diameters on the flanks and 4.11 on the facades—falls at the short end of the normal range of 6th-century B.C. columns from elsewhere in Greece.[21] At Corinth it is not yet clear whether the ratio of the height to the lower diameter of Doric columns changed in the course of the 6th century, as it did, for example, at Aigina.[22] Nor is it clear whether small-scale columns were proportioned differently from large-scale examples. No indications of refinements—entasis, inclination or augmentation

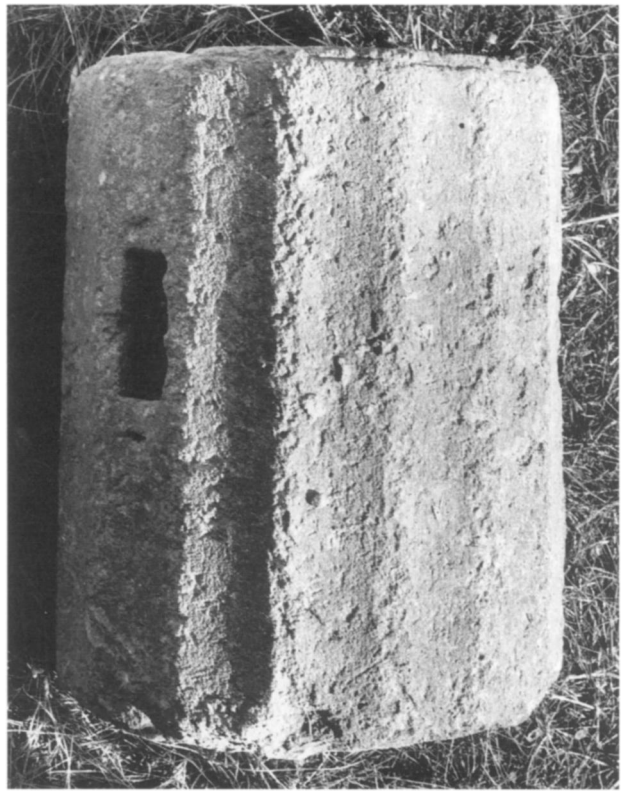

FIGURE 7.3. *Doric column shaft with a cutting for a grill: side*

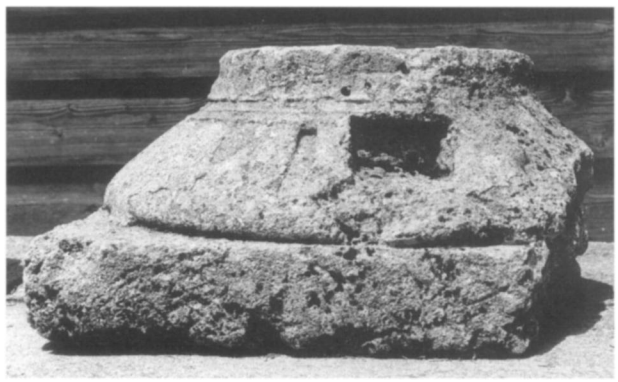

FIGURE 7.4. *Doric column capital AM-28 with a cutting for a grill: side*

of corner columns—have yet been observed in Archaic columns from Corinth, and certainly none are evident in the standing columns of the Temple of Apollo (see below, p. 114).

A minor detail to be added here is the fact that several column shafts and one column capital of the

20. Coulton *1979, pp. 82, 103.

21. According to my measurements and calculations the columns of the Temple of Apollo have an average height of 7.26 m and average lower diameters (between arrises) of 1.640 m on the flank and 1.768 on the facade. For comparison, the columns of the earlier Temple of Aphaia on Aigina (ca. 570 B.C.) are 4.62 lower diameters high (Schwandner *1985, pp. 27, 90); those of the Megarian Treasury at Olympia (ca. 510 B.C.) are ca. 5.0 lower diameters high (*Olympia* *II, p. 51); those of the late-6th-century Temple of Athena in the Marmaria at Delphi are 4.55–4.9 lower diameters high (Bommelaer *1991, p. 57); and those of the later Temple of Aphaia (ca. 500) are 5.23–5.31 lower diameters high (Bankel *1993, pp. 8–9).

22. See the preceding note.

Archaic period have cuttings in their sides, indicating that they once supported grills to close the adjacent intercolumniations (Figs. 7.3, 7.4).[23]

Antae

It is likely that the smaller Doric columns at Corinth were often combined with antae in columnar facades. Evidence of this is provided by six or seven anta capitals discovered in the area of the North Building and the Lechaion Road east of Temple Hill.[24] To judge from their findspots, a couple of these capitals might be associated with the North Building (see below, pp. 135–136), but the variations among the capitals argue against assigning them all to that building. Most of these capitals are of a common type with crowning hawksbeak and tainia. The asymmetrical configuration of the sides of two of the best-preserved anta capitals[25] suggests that they originally flanked columns of an in-antis porch or colonnade, while the symmetrical design of another[26] suggests that it was positioned behind a column in a prostyle arrangement.

In addition to these hawksbeak anta capitals from Corinth, which may date anywhere from about 570 to the end of the 6th century B.C.,[27] there is a small fragment from Perachora that might belong to a slightly earlier capital, crowned by a hawksbeak without a tainia above. Since the form of the hawksbeak is reminiscent of that on the antae of the early Temple of Aphaia on Aigina (dated by Schwandner to ca. 570 B.C.), it is possible that it belongs to the anta of an early-6th-century predecessor of the Late Archaic Temple of Hera Akraia.[28] Since, however, only a small corner of the element survives, its identification remains in doubt.[29]

Apart from the anta capitals with hawksbeak crowns, there is at Corinth one other anta capital of the so-called sofa type, which apparently was found in the area of the North Building with the other anta capitals mentioned above. Though its current location is unknown, the capital is documented in a drawing in *Corinth* I and an unpublished dimensioned drawing

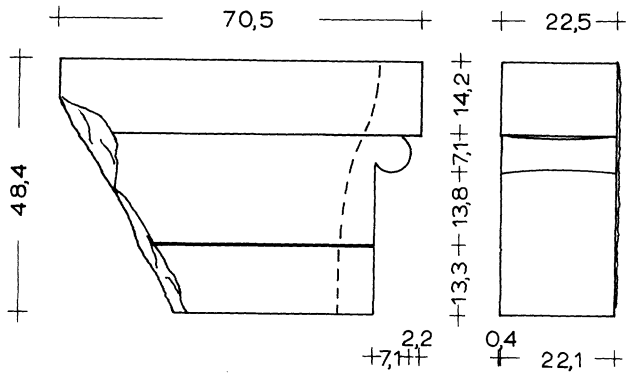

FIGURE 7.5. *Sofa capital found in the area of the North Building.* After *Corinth* I, pl. XXI, with dimensions added from notes of W. B. Dinsmoor

by Dinsmoor (Fig. 7.5).[30] While early examples of this kind of capital are more widely attested in the western Peloponnese and Magna Graecia,[31] two 6th-century B.C. examples have been found closer to home in the Argolid (one at Tiryns and the other at Argos).[32] The form of the Corinth capital, with straight, vertical sides beneath the end bolsters, is especially reminiscent of the anta capital from Tiryns, which has been associated with an early Doric column capital from the same site and dated accordingly to the early 6th century B.C.[33] If the date of the Tiryns capital is correct, it seems reasonable to assign an early 6th century date to the Corinth capital as well.

That the sofa capital from Corinth was an architectural element attached to the end of a wall and not merely a stele crown is indicated by the fact that there was a projecting element (subsequently cut away) at its back. This indication of the piece's architectural use, taken with the evidence for its early 6th century B.C. date, suggests that the sofa capital from Corinth is among the earliest anta capitals from the area. It might, in fact, be the earliest, representing a period (in the first quarter of the 6th century B.C.?) before the conventional hawksbeak capital was developed.

23. The capital is AM-28; see Williams 1978b, p. 74, no. 11, fig. 1. The column shafts are unpublished. I might add here that the column shafts associated with the cella of the Temple of Apollo have cuttings, but they are not positioned in such a way as to have supported grills between the columns. The purpose of these cuttings remains unclear.

24. *Corinth* I, p. 226, nos. 2–7, 10, pl. XXI; Shoe *1936, pp. 117–118, pl. LVI:5–6, 11–12.

25. *Corinth* I, nos. 2, 5, pl. XXI.

26. *Corinth* I, no. 6, pl. XXI.

27. See Shoe *1936, pp. 117–118, pl. LVI:5–6, 11–12.

28. Evidence for this predecessor is discussed in Menadier *1995, pp. 17–18, 40–41.

29. In *Perachora* *I, pp. 91–92, it is suggested that the fragment might belong to an altar crown. See also Menadier *1995, p. 36.

30. *Corinth* I, pl. XXI. The capital also appears in *Corinth* I, pl. XX, where it is incorporated improbably in the restored section of the late-5th- or early-4th-century phase of the North Building. Dinsmoor's drawing appears on p. 20 of NB 67 of the Corinth Excavations.

31. Barletta *1990, pp. 52–55.

32. For the Argos capital, see Roux *1961, pp. 384–385, fig. 104, and Schwandner *1988, pp. 280–281, figs. 8–12. For the Tiryns capital, see Schwandner *1988, pp. 276–283. In discussing the use of sofa capitals in the Peloponnese, neither Roux or Schwandner mentions the capital from Corinth. For more on sofa capitals in mainland Greece and Magna Graecia, see Mertens *1993, pp. 111–116.

33. For the association of anta and column capitals, see Schwandner *1988, p. 283. For the date of the column capital, see Naumann *1975, pp. 128–129; Schwandner *1985, p. 115.

Epistyles

Evidence for Archaic epistyles is provided by several epistyle blocks of the Temple of Apollo (most of which remain in position on the building),[34] a single epistyle block associated with the Apsidal Building,[35] two fragmentary blocks and detached guttae from the Great Temple near the Gymnasium,[36] and small fragments from both the Temple of Hera at Perachora and a small building in the area of the Theater.[37]

In all cases where it is preserved, the crowning tainia of the epistyle is treated as a plain projecting band, with no relief decoration along its outer face. Regulae, positioned at the joints and central axes of the epistyle blocks, project from below the tainia in the usual manner. In Corinth's two largest Doric buildings—the Temple of Apollo and the Great Temple near the Gymnasium—the guttae that hang down from the regulae are carved in an exceptional way, completely free of the face of the epistyle (Fig. 7.6). On a fragment of a much smaller epistyle from the area of the Theater, however, the guttae remain attached to the face of the epistyle, as is more common (Fig. 7.7). In the case of the small epistyle associated with the Apsidal Building, there are no guttae on the regulae (Fig. 7.14).

Although the intentional omission of guttae may seem, at first, unusual, it is attested on a surprising number of Archaic buildings, such as the early Tholos at Delphi,[38] the Temple of Athena at Assos,[39] the Bouleuterion, Treasury of Selinus, and Treasury of Gela at Olympia,[40] the Temple of Athena at Alipheira,[41] and the Hekatompedon on the Athenian Acropolis.[42] For the Apsidal Building at Corinth, as also for the Bouleuterion at Olympia and the Tholos at Delphi, the curvilinear plan of the building may have affected the choice of a gutta-less epistyle, for the architect of such a building, anticipating the difficulty of distributing guttae on the mutules of a curving geison, might reasonably have opted to omit guttae from both the epistyle and geison. In the Apsidal Building at Corinth, as in the Bouleuterion and Treasury of Gela at Olympia, the Temple of Athena at Alipheira, and the Hekatompedon at Athens, the elimination of guttae on the epistyle is accompanied by a considerable reduction in the projection of the tainia and regulae.

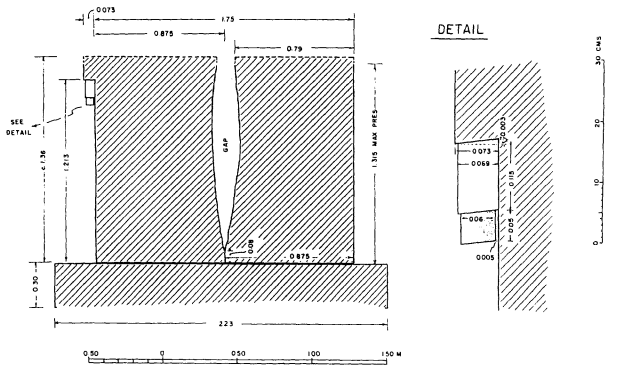

FIGURE 7.6. *Section of the west epistyle of the Temple of Apollo*

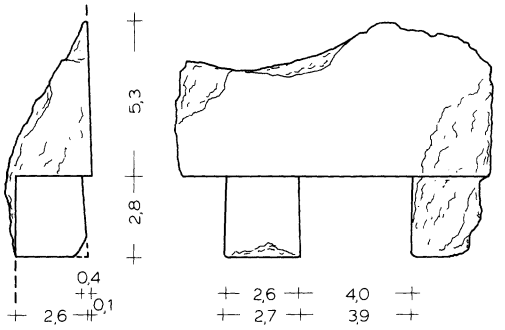

FIGURE 7.7. *Fragment of an epistyle from east of the Theater*

Friezes

For the friezes of Archaic Corinthian buildings, direct evidence is provided by one small triglyph fragment from the Temple of Apollo,[43] three triglyphs and two small metope fragments from the Temple of Hera Akraia at Perachora,[44] and one triglyph associated with a late-6th- or early-5th-century B.C. building near the Theater (Fig. 7.38).[45]

34. *Corinth* I, p. 121, fig. 85, pls. VI, IX.

35. Williams 1969a, p. 41, fig. 2.

36. Dinsmoor 1949, pp. 107–108, fig. 1; Wiseman 1967b, fig. 3.

37. For the small epistyle fragment from the Temple of Hera, which is now missing, see *Perachora* *I, p. 84, pl. 125. Payne's text erroneously indicates that the fragment is illustrated in fig. 5; see below, note 44. A sketch of the fragment also appears in Piet de Jong's field notebook, p. 22. I thank Margaret Cogzell for allowing me to consult this notebook in the archive of the British School at Athens. For the epistyle fragment from the area of the Theater, see below, p. 122.

38. Seiler *1986, p. 46.

39. Clarke, Bacon, and Koldewey *1902, pp. 145–155.

40. *Olympia* *II, pls. XXXIII (Treasury of Selinus), XL (Treasury of Gela), LVI–LVII (Bouleuterion). Mallwitz (*1961, p. 47) has suggested that the tendency to eliminate guttae on both regulae and mutules at Olympia may in part be due to the difficulty of carving such small details in the local shelly limestone. The limestone of Corinth poses no such difficulty.

41. Orlandos *1967–1968, p. 67, fig. 43.

42. Wiegand *1904, pp. 39–43, figs. 57:a–e.

43. *Corinth* I, pl. VIII.

44. These triglyphs are published in *Perachora* *I, p. 84, pls. 19:b, 126, and Menadier *1995, pp. 46–48, figs. 30–34. The metope fragment mentioned in *Perachora* *I, p. 85 is now missing; it is, however, recorded in a dimensioned sketch in Piet de Jong's field notebook (p. 22). I believe that the small fragment illustrated in *Perachora* *I, fig. 13 also belongs to a metope, since the height and projection of its crowning fascia are within 2 mm of the corresponding dimensions of the other fragment. That this figure is incorrectly referred to in *Perachora* *I, p. 85 as an illustration of the surviving epistyle fragment has confused both Coulton (*1967, p. 210) and Menadier (*1995, pp. 44, 61–62).

45. Williams and Zervos 1982, p. 131; for further discussion of this triglyph, see below, pp. 121–122.

Indirect evidence for frieze proportions is provided by epistyle blocks of the Temple of Apollo and the Apsidal Building and by horizontal geison blocks of the Temple of Hera Akraia at Perachora. In the temple at Perachora, where the evidence is most complete, the proportions of the frieze are comparable to those of the Late Archaic Temple of Aphaia on Aigina. The metope width is 95% of the frieze height (as compared to 99% on the Temple of Aphaia), while the triglyph width is 60% (as compared to 62% on the Temple of Aphaia). In the case of the Temple of Apollo at Corinth, which is about a generation earlier than the Temple of Hera, the triglyphs appear to have had proportions similar to those at Perachora, but the metopes appear to have been rather narrower.

The exact proportions of the frieze elements of the Temple of Apollo cannot be determined because the height of the frieze is not preserved, but assuming that the frieze height would have been equal to, or more probably slightly less than, the epistyle height (1.34 m), the triglyph width would have been about 62–63% of the frieze height, while the metope width would have been about 85–86%. That these proportions are quite comparable to those of the frieze elements of the earlier Temple of Aphaia on Aigina suggests that the difference between the proportions of the frieze of the Temple of Apollo and those of the Temple of Hera Akraia is likely to have chronological significance.

Less easy to explain are the frieze proportions indicated by the epistyle block of the Apsidal Building (Fig. 7.14). If, again, we assume that the frieze height was equal to, or slightly less than, the height of the epistyle, the metope width (indicated by the space between the regulae) would have been about 80–81% of the frieze height, while the triglyph width (indicated by the regula width) would have been about 70–71%. This combination of unusually wide triglyphs and narrow metopes may indicate that the frieze of this building, which is not securely dated, is an early experiment in Doric frieze design at Corinth. Alternatively, the unconventional frieze may in some way be a response to the unusual plan of the building to which it belongs.

From the triglyph blocks of the Temple of Hera at Perachora and an isolated triglyph block from the area east of the Theater at Corinth, it would appear that in the Archaic period Corinthian Doric friezes were typically constructed of independently carved triglyphs and metopes and that the ends of the metopes were normally concealed behind the projecting edges of the triglyphs.[46] This is, of course, a method of construction that is well attested elsewhere in the Archaic period, for example, in the early Temple of Aphaia on Aigina and the Temple of Artemis on Kerkyra.[47] The details of the extant triglyphs from Corinth and Perachora are well developed, as befits their Late Archaic date. Notable, in particular, is the treatment of the upper termination of the beveled grooves; it has a subtle "elliptical" form and is deeply undercut at the top (see Fig. 7.38). On a small fragment from the Temple of Apollo, the half-groove at the right side of the triglyph has a gently curving upper termination, which indicates that the normal grooves of the triglyph may have had roughly semicircular tops, like those on early-6th-century B.C. triglyphs elsewhere.[48] If the evidence of the triglyph fragment from the Temple of Apollo is reliable, it would suggest that the development from semicircular to "elliptical" groove terminations occurred at Corinth in the third quarter of the 6th century B.C.

A small metope fragment from Perachora, now missing, preserved at its top a portion of a plain, horizontal fascia, narrower but with a greater projection than the triglyph crown. That similar fasciae adorned metopes on Corinthian Doric buildings as early as the mid 6th century B.C. is indicated by the slot in the side of a triglyph fragment from the Temple of Apollo, which was intended to receive the end of the fascia of the adjacent metope block.[49]

With regard to the decoration of metopes on Archaic Corinthian buildings, the evidence is inconclusive. That the extant metopes of the 6th-century B.C. Triglyph Altar at Perachora[50] and of the early Triglyph Wall at Corinth[51] are devoid of carved reliefs might seem to indicate that the metopes of early Corinthian buildings generally lacked sculptural decoration. Since, however, there is no assurance that these metopes positioned near ground level were treated in the same way as those set high in the entablature of Corinthian buildings, the evidence of the altar and wall may be misleading.

46. For the triglyphs at Perachora, see *Perachora* *I, pl. 126, and Menadier *1995, figs. 30–34. The triglyph block from the area of the Theater is illustrated here in Fig. 7.38 for the first time. For reasons that remain unclear, there is no projecting edge on one side of this triglyph.

47. Schwandner *1985, pp. 36–42, figs. 21–25, pl. 11; *Korkyra* *I, pp. 34–35, figs. 17, 18.

48. For the triglyph fragment from the Temple of Apollo, see *Corinth* I, pl. VIII. Archaic triglyphs with semicircular or nearly semicircular groove terminations appear elsewhere, for example, in the early Temple of Aphaia at Aigina (Schwandner *1985, figs. 21–22, 41–43, pl. 11:2), the south wing of the Bouleuterion at Olympia (*Olympia* *II, pl. LVII), the temple at Asea (Mertens *1993, pl. 75:2), Buildings A and C, the Hekatompedon, and the Old Athena Temple on the Athenian Acropolis (Wiegand *1904, figs. 60, 118–119, 133; Travlos *1971, figs. 80, 82).

49. *Corinth* I, pl. VIII.

50. *Perachora* *I, pp. 89–90, pl. 6.

51. *Corinth* I, vi, fig. 80. Charles Williams has drawn my attention to the fact that there are bronze pins and holes for pins in the metopes of the earliest (northernmost) portion of the Triglyph Wall. As he has observed, these pins may have held decorative bronze appliqués similar to those from Olympia; see Mallwitz *1972, pp. 89–90; Mallwitz and Herrmann *1980, pp. 75–77.

In the past, a number of fragmentary terracotta and limestone reliefs have been put forward as evidence for sculptured metopes, but the identification of these pieces has been called into question. Notable among these pieces is a limestone relief of a frontal horse, found on Temple Hill, which was connected with the frieze of the Temple of Apollo in a number of earlier studies.[52] In a careful reexamination of this piece published in 1970, Bookidis dissociated it from the temple, arguing that the scale of the horse appears too small for the likely height of the temple's exterior frieze,[53] but in a more recent study she suggests that it and other smaller fragments found near the temple might belong to smaller metopes above the porches of the temple.[54] If the relief does indeed belong to a porch frieze, it would indicate that the tradition of sculptured porch metopes, well attested in the Peloponnese during the 5th and 4th centuries B.C.,[55] goes back well into the 6th century at Corinth.

Horizontal Geisa

The only well-preserved examples of Archaic Doric geisa—from the Temple of Hera Akraia at Perachora and the Great Temple near the Gymnasium at Corinth (Fig. 7.29)—date to the late 6th century B.C. and are accordingly well developed.[56]

The horizontal geisa have, on their soffits, mutules of uniform dimensions alternating with narrow viae. The mutules are decorated with three rows of six rather long guttae. The drip molding at the front of the corona has a concave profile, such as appears first in the last quarter of the 6th century B.C. (see Fig. 7.29).[57] Not surprisingly for the Archaic period, there is no soffit or crowning molding on the horizontal geisa.

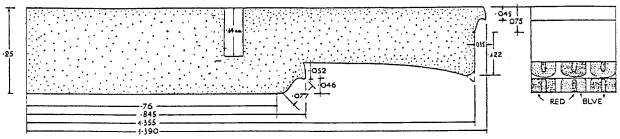

FIGURE 7.8. *Raking geison block of the Temple of Hera Akraia.* After *Perachora* *I, pl. 128

Pediments

From the existence at Corinth of numerous terracotta simas datable to the second quarter of the 6th century B.C. and later, and from the absence of 6th-century hipped tiles, it is safe to conclude that generally Corinthian Doric buildings of the Archaic period had saddle roofs with pediments at both ends. As Winter has noted, the absence of simas that can be associated with the earliest series of antefixes might indicate that buildings before the second quarter of the 6th century B.C. had hipped rather than pedimented roofs, but such negative evidence cannot be regarded as conclusive.[58] If, on the other hand, a passage in Pindar (*Ol.* 13.21–22) is taken, as it often is, to indicate that pediments were considered to have been a Corinthian invention, we should expect pediments at Corinth from the latter part of the 7th century B.C., when pediments are first attested elsewhere in Greece.[59]

To date, the only Archaic Corinthian building that preserves a substantial portion of its pediments is the Temple of Hera Akraia at Perachora.[60] Here, a single

52. Hill 1926, pp. 47–48; Weickert *1929, p. 114; Hafner *1938, pp. 13, 35; *Perachora* *I, p. 74; Gjødesen *1963, p. 344, figs. 41–42, pl. 76.

53. Bookidis 1970, pp. 320–323.

54. Bookidis 1995, p. 238. In a previous draft of this article I had concluded independently that the horse might be associated with a smaller porch metope. All the sculpture from Temple Hill will be published by Kim Hartswick.

55. Sculptured porch metopes are associated with the following Peloponnesian temples: the Temple of Zeus at Olympia (Mallwitz *1972, p. 227, figs. 176, 181); the Temple of Apollo at Bassai (*Bassitas* *I, pp. 201–203; *II, pp. 7–37, pls. 1–35); the Temple of Hera at the Argive Heraion (Pfaff *1993); and the Temple of Athena Alea at Tegea (Dugas et al. *1924, pp. 35–36, pls. LVIII–LIX).

56. Of the horizontal geison of the Temple of Apollo only guttae, some preserving a portion of the attached mutule, survive. See *Corinth* I, pl. VIII.

57. Early examples appear on the Peisistratid Telesterion at Eleusis (Noack *1927, p. 87, fig. 40) and the later Temple of Aphaia on Aigina (Bankel *1993, figs. 9–10; Shoe *1936, p. 158, pl. LXXIII:11). The profile of the drip of the geison at Perachora, as illustrated in *Perachora* *I, pl. 128, is inaccurate. The correct profile appears in Menadier *1995, fig. 40.

58. Winter *1993, p. 20.

59. Most scholars attentive to Greek architecture and sculpture have interpreted Pindar's οἰωνῶν βασιλέα δίδυμον as a reference to double pediments rather than to actual images of eagles on temples. This interpretation is supported both by the fact that elsewhere Pindar uses the word αἰετός for pediment (*Pae.* VIII.70–71 [Maehler]) and by the fact that sculptured eagles are not known to have been used either as akroteria or pedimental figures. For discussion of the passage, see Farnell *1932, p. 92; Le Roy *1967, p. 27, note 6; Winter *1993, p. 20.

60. There are, in addition, fragments of pediments from one or two small buildings. One fragment (AM-1), preserving a portion of the apex of both the raking geison and sima, was found in the Lechaion Road near the Roman Propylon; the profiles of the sima and crowning molding of the geison were published by Shoe, who dated them to 510–500 B.C.: Shoe *1936, pp. 34, 104, 107, pls. XVIII:16, LII:9, LIII:9. The block itself, which is shown here in Fig. 7.9, has not previously been published. According to Shoe (*1936, p. 107), a second fragment, "undoubtedly from the same member," was found in the Asklepieion. This second fragment does not appear in the preliminary excavation reports on the Asklepieion (de Waele 1933, 1935) or in the final report in *Corinth* XIV, pp. 147–151, and I have been unable to locate it. A third fragment, also from the Asklepieion, which preserves part of the hawksbeak soffit molding, is tentatively associated by Shoe with the former two pieces, although the profile of the molding suggests a slightly later date. This third piece, like the second, does not appear in any of the publications of the Asklepieion and is now missing. If all three pieces belong to a single building, as Shoe has suggested, it remains unclear how they became so widely separated between the Asklepieion and the central Forum area.

row of tympanum blocks, whose tops are cut at a relatively low (11.5°) angle, supported the longitudinal timbers of the roof and the raking geison.[61] This raking geison, like others of the Late Archaic period, has a soffit and crown molding, each a variety of the Doric hawksbeak (Fig. 7.8).[62] The soffit of the geison has a subtly curved profile, such as rarely appears before the 5th century B.C.[63] Although the pediments of this temple show no sign of having included sculpture, fragmentary terracotta groups discovered at Corinth suggest that at least by the Late Archaic period, such pedimental decoration was in use.[64]

Doric Polychromy

From the limited evidence now available, it appears that the Doric order of Corinth's 6th-century B.C. buildings was provided with the customary polychromy: primary structural elements were stuccoed white, while horizontal accents were painted red and vertical accents were painted black. Remains of white stucco can be found on several extant column shafts and capitals, and on epistyle blocks and metopes. White stucco also appears on the guttae of the Temple of Apollo, the Great Temple near the Gymnasium, and a small Doric temple(?) near the Theater. Red paint is attested on the tainia of the epistyle of the Temple of Apollo and the lower fascia and viae of the geisa of the Great Temple near the Gymnasium and the Temple of Hera Akraia at Perachora.[65] Black paint, which seems to be particularly fugitive, is attested only once, on a mutule of the Great Temple.

Evidence from Perachora, recorded earlier by Payne, confirms that Corinthian Doric moldings were painted in the usual manner; the hawksbeak soffit molding of the raking geison of the late-6th-century B.C. Temple of Hera and an earlier hawksbeak, perhaps from an anta capital or altar crown, both have the usual Doric leaf design in blue and red (see Fig. 7.8).[66]

Building Materials

With the exception of their roofs, the Archaic buildings of Corinth were made of local limestone ("poros"), which was both easy to work and easy to acquire.[67] Studies by Rhodes and Brookes have shown that this material was already in use in Corinth in the 8th century B.C. and that techniques for working it were already well developed by the first half of the 7th century, when it was used in the first monumental temples at Corinth and Isthmia.[68] Throughout the 6th century B.C., the finishing of poros architectural elements was carried out with a variety of flat chisels, as is attested by tool marks still visible on extant pieces.[69] Visible surfaces were given additional treatments according to their intended appearance. Surfaces that were to be entirely or predominantly white were coated with a thin white lime stucco.[70] Those surfaces that were intended to be solidly colored—usually red or black—received a coat of paint, usually, it would seem, applied directly to the stone, without an intervening layer of stucco.

Terracotta, produced locally by Corinth's well-known ceramics industry, was used for nearly all roof revetment in the Archaic period. It was used, as well, for architectural sculpture: akroteria, pedimental groups, and perhaps relief metopes. The fabric, well tempered with coarse mudstone inclusions to control shrinkage, is usually covered with a finer layer of clay or a clay slip in areas intended to be seen. Clay and slip both tend to fire to colors ranging from tan to yellowish buff and pale green. Terracotta roof revet-

61. For the angle of the roof, see *Perachora* *I, p. 86; Coulton *1967, p. 209. There is, generally, a greater variation in the slopes of roofs in the Archaic period than later in the Classical period. Examples of Archaic roof slopes: Temple of Artemis at Kerkyra, 17.10° (*Korkyra* *I, pp. 26–28); early Temple of Aphaia on Aigina, 10.76° (Schwandner *1985, p. 54, fig. 36); Hekatompedon at Athens, 13.5° (Beyer *1974, p. 640, fig. 3); Alkmaionid Temple at Delphi, 13.52° (Courby *1927, p. 103); Megarian Treasury at Olympia, 14.63° (*Olympia* *III, p. 5); later Temple of Aphaia on Aigina, 14.47° (Bankel *1993, p. 38, fig. 16). The slope of the roof indicated by the small geison/sima fragment from the Lechaion Road (AM-1: Fig. 7.9) is 13.01°, while that indicated by the apex akroterion base of the Great Temple near the Gymnasium is 11.0°.

62. Other Late Archaic raking geisa with both soffit and crown moldings are associated with the Peisistratid Temple of Athena at Athens (Wiegand *1904, p. 122, fig. 118) and the later Temple of Aphaia on Aigina (Bankel *1993, pp. 42–47, figs. 19–26).

63. The raking geison of the Megarian Treasury at Olympia (dated to ca. 510 B.C.) has a curved soffit (Mallwitz *1972, fig. 136), but most other Late Archaic raking geisa, including that of the Peisistratid Temple of Athena at Athens (Wiegand *1904, p. 122, fig. 118), the later Temple of Aphaia on Aigina (Bankel *1993, pp. 42–49, figs. 19–26), and the Athenian Treasury at Delphi (Audiat *1933, pl. XXI) retain the earlier, straight sloping form.

64. Stillwell 1936a; Weinberg 1957, pp. 306–309; Bookidis *1967, pp. 126–129. I should add here that a fragment of a limestone hand clutching a strap, which was found in 1930 on the north side of Temple Hill, could conceivably belong to a pedimental figure from the mid-6th-century B.C. Temple of Apollo; see Bookidis 1995, pp. 238–239 (S-3729).

65. These observations are based on my own autopsy. The reporting of red paint on the mutule of the corner geison block at Perachora in Menadier *1995, p. 49, is erroneous.

66. *Perachora* *I, p. 86, pls. 19:a, 128 (geison); pp. 91–92, pl. A (anta capital or altar crown).

67. Haywood's paper in this volume discusses aspects of the quarries that produced this building stone, as well as the various meanings of the term "poros."

68. Brookes 1981; Rhodes 1987a.

69. Astute observations on the process of roughing-out and finishing Archaic poros blocks in the Corinthia are found in Rhodes 1984, pp. 29–32. I agree entirely with his interpretation of the various tool marks left by adzes and flat chisels.

70. A study of the stuccoes and cements used at Corinth is currently being conducted by Ruth Siddall and should provide clarification regarding the composition of these materials.

ment and sculpture are typically decorated with red and black "glazes." Although the method of painting and firing these terracottas has not been carefully studied, it is likely that the process was generally similar to that used for contemporary painted pottery. If so, the black would be a sintered engobe or slip, left black by a three-stage (oxidizing–reducing–oxidizing) firing process, while the red would be an iron oxide pigment mixed with an engobe binder.[71]

Only rarely, in the Temple of Hera Akraia at Perachora and the Great Temple near the Gymnasium at Corinth, was marble used in place of terracotta for Archaic Corinthian roof revetment.[72] In both cases, the marble is a large-grained white variety of high quality, probably derived from the Cyclades. Marble of the same variety was also used on the Temple of Hera for figural akroteria, only fragments of which survive.[73] In the Temple of Apollo at Corinth, the threshold of the east door, which survives in fragments at the east end of the cella, is also of white marble, but since this is apparently Pentelic marble, which would not have been available in the 6th century, the threshold is not likely to belong to the original construction of the temple, but to a later renovation.[74] From the scarcity of genuinely Archaic marble elements, it appears that at Corinth marble was a luxury that could be afforded for only a few special commissions. Furthermore, when marble was used, it was used judiciously in such parts of a building—the roof revetment and sculpture—where comparatively small amounts would make the most impact.

Construction Techniques

The monumental buildings of Archaic Corinth were constructed much like those elsewhere in Greece. Carefully carved components were assembled in a dry masonry technique that made limited use of clamps for joining elements laterally within a single course. Swallow-tail clamps were in use by the mid 6th century B.C., when the Temple of Apollo was built,[75] and H- and Z-clamps were both in use by the last quarter of the 6th century, when the Temple of Hera Akraia at Perachora was constructed.[76]

At Corinth, as elsewhere, dowels were seldom used in this period for the purpose of joining blocks of successive masonry courses. In fact, dowel holes are so far attested only on the tops of horizontal and raking geison blocks of the Temple of Hera Akraia at Perachora[77] and on the top of a raking geison/sima block at Corinth (Fig. 7.9).[78] Otherwise the only vertical connectors for which there is evidence are axial pegs, or poloi, between column shafts and capitals. Round holes, as appear in some columns, such as those from the Temple of Apollo, imply the use of cylindrical poloi set directly into the holes (Fig. 7.10). Square holes, on the other hand, such as the one on the capital AM-28 (Fig. 7.11), imply the use either of rectangular pegs or of cylindrical poloi set into square empolia. From the evidence now available it appears that cylindrical poloi set directly into the round holes were used in column construction in the second and third quarters of the 6th century B.C., but not later.[79] The use of

71. These comments are based on Noble's analysis of Athenian painted pottery (*1988, pp. 84, 137). It is worth noting here that at least on occasion manganese was used for a matt black on Archaic Corinthian terracotta sculpture, as has been shown by tests by Richard Jones at the Fitch Laboratory of the British School at Athens; see Bookidis 1995, p. 234, note 12.

72. For the roof of the Temple of Hera, see *Perachora* *I, pp. 86–87, pls. 20, 127 (the marble is identified as "island marble"); Menadier *1995, pp. 59–60. For the roof of the Great Temple, see below, p. 118.

73. *Perachora* *I, pp. 87–88, pls. 21–22. Payne identifies the marble as Parian.

74. Even in Athens, Pentelic marble was not used for monumental architecture before the 5th century; see Korres *1995, pp. 10, 94–98. In Corinth it is used in the Roman period, as, for example, in the Babbius Monument.

75. Cuttings for swallow-tail clamps can be seen in the anta block of the temple (*Corinth* I, fig. 87); other cuttings for swallow-tail clamps: several large ones, perhaps for wooden clamps, in the socle of the Apsidal Building (*Corinth* I, vi, fig. 75); one at the northwest corner of the wall of the Temple of Hera Akraia at Perachora (*Perachora* *I, p. 82); and one on the top of a frieze block on Temple Hill (see below, p. 132). Of later date, probably 4th century B.C., are lead swallow-tail clamps used in the south stretch of the Triglyph Wall near the Sacred Spring (for the clamps: *Corinth* I, vi, p. 180; for the chronology: Williams 1969a, pp. 49, 60; Williams and Fisher 1971, p. 22).

76. For the clamps in the Temple of Hera at Perachora, see *Perachora* *I, pp. 84–86, pl. 126; Menadier *1995, pp. 48–51, 53–55, figs. 31, 36, 45–46, 54, 57, 60, 62, 65, 68. H-clamps are used through the 5th century and into the 4th century at Corinth: they appear, for example, in foundation and wall blocks of the Temple of Poseidon at Isthmia (*Isthmia* *I, pp. 61, 86, figs. 73–88, 90, 93) and in the entablature of the late-5th- or early-4th-century colonnade of the North Building (*Corinth* I, p. 225, fig. 151). Z-clamps are otherwise attested in Corinthian architecture in an unidentified and undated frieze block near the Sacred Spring (unpublished); in the central portion of the Triglyph Wall near the Sacred Spring, which was set, or reset(?), in its current location in the 4th century (*Corinth* I, vi, pp. 177–178; Williams 1970a, pp. 49, 60; Williams and Fisher 1971, p. 22); and in the walls of the double-apsidal cistern at Perachora, which has been dated anywhere from the late 6th to the late 4th century B.C. (Tomlinson *1969, pp. 155–172; *1990, pp. 97–99; Sinn *1990, pp. 103–104).

77. Menadier *1995, pp. 49–50, 53, figs. 36, 56. Two holes on the horizontal geison held dowels to secure the lower corner of the pediment; one or two holes on the raking geison presumably held dowels to attach a pan or sima tile to the geison. The holes indicate that the dowels were all roughly square in plan.

78. The hole on this block (AM-1) apparently held a dowel to secure an akroterion base to the apex of the roof.

79. The round hole illustrated in Fig. 7.10 appears on the top of a fragmentary column shaft of the Temple of Apollo that now rests upon the south wall of the North Market. A round hole can also be seen on the top of a very small column shaft lying in the area of the Peribolos of Apollo (unpublished) and on the bottom of a capital in the Baths of Eurykles (A-1005: Williams 1984b, p. 72, no. 4). All three are likely to date to the second or third quarter of the 6th century B.C.

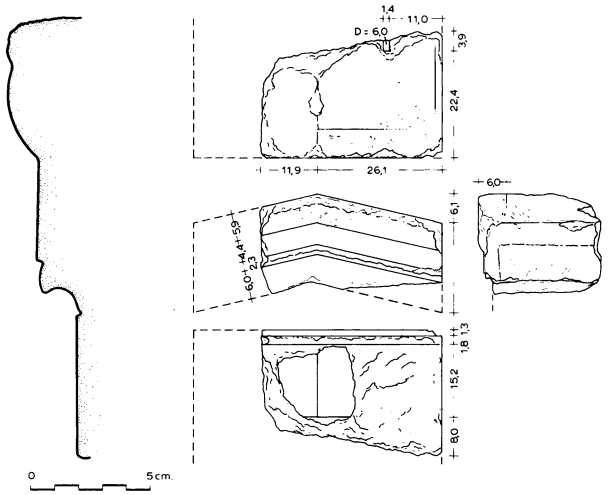

FIGURE 7.9. *Combination raking geison/sima block AM-1, found near the upper end of the Lechaion Road*

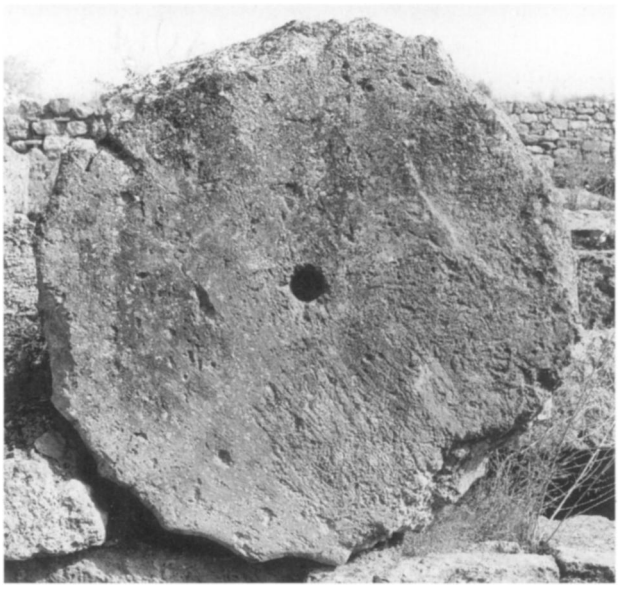

FIGURE 7.10. *Exterior column of the Temple of Apollo: top*

FIGURE 7.11. *Doric column capital AM-28: bottom*

square pegs or empolia, on the other hand, seems to have begun by the second quarter of the 6th century B.C. and to have continued on into the Classical period.[80]

To improve the fit between blocks within a course, band anathyrosis was often used in the superstructures of 6th-century B.C. Corinthian buildings. In some instances, as, for example, on the surviving anta block of the Temple of Apollo, the outer margins of the anathyrosis are in fact canted, so that only their outer edges would have made contact with the adjacent block. In places where open joints would not be seen, as in the foundations of the Temple of Apollo, anathyrosis may be restricted to the upper edge of the joint surface or the joint surface may simply be beveled so that only its upper edge could make contact with the adjacent block (see Fig. 7.12). In some cases, as for example on vertical joints of the wall blocks of the Temple of Hera Akraia, there is no distinct anathyrosis; the central portion of the joint surfaces is only slightly rougher in finish than the edges.[81]

Only occasionally in the Corinthia is anathyrosis attested on the horizontal beddings of blocks. The most conspicuous example of this is, again, in the Temple of Hera at Perachora, where bands of anathyrosis appear along the outer edges of the tops of many, but not all wall blocks.[82] If, as Menadier has argued, these blocks with the anathyrosis are reused from the predecessor of the late-6th-century B.C. temple, the unusual treatment of the beddings might reflect 7th- rather than 6th-century masonry techniques.[83] That this may be so is suggested by the appearance of the same kind of anathyrosis on foundation blocks associated with the Treasury of the Corinthians at Delphi, a building linked with Kypselos, whose reign is traditionally dated from 657 to 627 B.C.[84] A different vari-

80. Evidence for the earliest use of square pegs or empolia is provided by two column capitals: one from the Forum area, AM-27, which should probably date to about 580–570 B.C., and the other from the Potters' Quarter (KA-1), which probably belongs in the middle of the century (Williams 1984b, p. 72, nos. 2, 3, fig. 1; *Corinth* XV, i, p. 80, fig. 11, pl. 25:B). The size of the holes is generally rather small: 0.051 × 0.040 m on AM-27, 0.035 × 0.035 m on A-1981-7, and 0.040 × 0.046 on A-487 (Williams 1984b, pp. 72, 74, nos. 2, 12, 13).

81. *Perachora* *I, p. 82; Menadier *1995, p. 14.

82. *Perachora* *I, p. 82; Menadier *1995, pp. 13–16.

83. Menadier *1995, p. 16.

84. The similarity of the anathyrosis at Delphi and Perachora is noted by Menadier (*1995, p. 14). That the Treasury of the Corinthians was dedicated by Kypselos is reported by Herodotos (1.13) and Plutarch (*Mor.* 400e); though see the evaluation of the evidence in Young *1980, pp. 38–40. For the Corinthian Treasury, see Bommelaer *1991, pp. 153–154. For the date of Kypselos, see Servais 1969.

FIGURE 7.12. *Temple of Apollo, krepidoma foundation*

ety of horizontal anathyrosis is used on the bottom of a Doric frieze block from Temple Hill, which may be contemporary with the Temple of Apollo (see Fig. 7.47); although there is a smooth margin along the front of the block, it is canted so that only its outer edge and the outer edge at the back of the block would have made contact with the course below the block.

It is known from ancient sources that Greek masons used flat stone plates or wooden planks (κανόνες) coated with wet red paint in order to test the planes of blocks as they were being finished.[85] Direct evidence for this procedure in Corinthian architecture is provided by abundant traces of red paint that were visible on the joint surfaces of the Temple of Hera Akraia at the time of its excavation.[86]

To facilitate the lifting and shifting of architectural elements, bosses were carved onto the faces of blocks, as can be seen in the foundations of the Temple of Hera at Perachora (Fig. 7.13).[87] How often and how early such bosses were used remains unclear, since normally they were removed from finished architectural elements and are therefore untraceable.

From the second half of the 7th century B.C. to perhaps as late as the end of the 6th or beginning of the 5th century, U-shaped rope holes were cut into the tops of blocks to facilitate installation. In the case of elements that needed to be hoisted, rather than shifted, into position (such as column capitals and epistyle blocks), these rope cuttings (alone or in pairs) were centered on the axes of the blocks so that, when lifted, the blocks would remain in a convenient hori-

FIGURE 7.13. *Temple of Hera Akraia at Perachora, foundations of the south wall*

85. Literary evidence for the use of κανόνες is collected in Orlandos *1958, p. 140.

86. *Perachora* *I, p. 82. There is no longer any trace of the red paint on the exposed surfaces.

87. *Perachora* *I, p. 82, pl. 5:a, d, e.

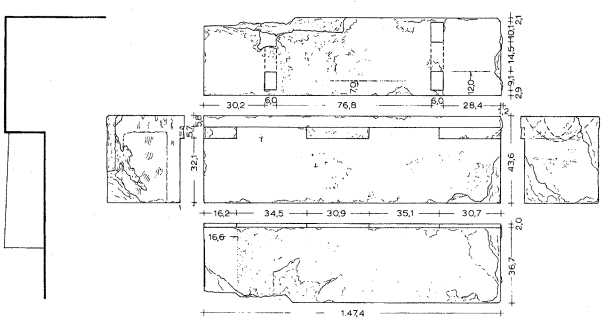

FIGURE 7.14. *Corner epistyle block associated with the Apsidal Building, showing centered rope holes*

zontal position. Examples of cuttings centered thus are rare at Corinth: one of a pair can be seen on a fallen capital of the Temple of Apollo and a complete pair can be seen in an epistyle block associated with the Apsidal Building near the Sacred Spring (Fig. 7.14).[88] More common are single U-shaped rope cuttings positioned near one end of a block, which were used, as Coulton has demonstrated,[89] to shift one block against its neighbor in a continuous course. Examples of these off-center cuttings appear on foundation blocks of the Corinthian Treasury at Delphi,[90] on foundation and wall blocks of the Temple of Hera Akraia at Perachora,[91] on a series of reused blocks in the Sanctuary of Demeter and Kore at Corinth,[92] and on other isolated blocks at Corinth.[93]

An alternative method of shifting blocks within a course is attested only on blocks of the north interior stylobate of the Temple of Hera at Perachora.[94] Near one end of each block a groove extends from side to side across the bottom of the block. This groove would have allowed a rope to be passed under the block so that the inner end of the block (i.e., the end adjacent to the previous block set in the course could be raised while the block was pried from the outer end). As Menadier has observed, these rope grooves appear to be a development of the earlier 7th-century B.C. rope grooves that appear on blocks of the early temples of Apollo at Corinth and Poseidon at Isthmia.[95] From the fact that rope grooves are used only on blocks of the north stylobate and not of the south, it is possible, as Menadier has suggested, that the blocks with grooves are remnants of a predecessor of the Temple of Hera. The apparently primitive form of the cuttings might seem to reinforce the impression of their early date, but does not prove it, for even in a later period when U-shaped rope holes were in common use, simple rope grooves might have been employed in special situations, as on stylobates, where it was desirable to avoid conspicuous holes in the upper surface of blocks that were intended to be seen.

Before the end of the 6th century B.C., lewis irons began to be used for lifting blocks, as is indicated by deep lewis cuttings on a column capital (A-1005), which probably dates to the third quarter of the 6th century, on geison blocks of the Temple of Hera at Perachora, and on an epistyle block of the Great Temple near the Gymnasium (Fig. 7.15). This evidence is, in fact, among the earliest for the use of the lewis in Greek architecture.[96]

At Corinth, as elsewhere, blocks were usually pushed and levered into place with the help of crowbars. As can be seen on many Archaic blocks, pry cuttings were carved into their tops in order to improve the purchase of the end of the crowbar while it was being used to push the blocks of the course above into place. Other pry cuttings, more rarely attested, appear at the bottom edges of blocks. On the foundation blocks of the Temple of Apollo, where they are

88. The use of U-shaped rope holes is clearly explained in Coulton *1974, pp. 1–4. For the pair of cuttings on the epistyle block, see Williams 1969a, pp. 41–43, fig. 2. The U-shaped cutting on the capital from the Temple of Apollo is not centered above the axis of the capital and must therefore have been one of a pair of cuttings. Considering the size of the capital from the Temple of Apollo, it is hard to imagine that it could have been lifted except by means of a crane. If that is so, it would imply an earlier date for the introduction of the use of the crane in Greek architecture than Coulton has posited.

It is perhaps worth noting here that pairs of U-shaped lifting holes appear in the crowning blocks of the Classical semicircular altar to the east of Temple A at Corinth. The cuttings are not positioned symmetrically to the center of gravity of the blocks in their present form, but perhaps the blocks have been recut; see *Corinth* I, ii, fig. 7.

89. Coulton *1974, p. 2.

90. Bommelaer *1991, p. 154; Bourget *1912, pp. 650–651, fig. 3.

91. *Perachora* *I, p. 82; Menadier *1995, p. 18, figs. 5, 8.

92. These blocks are reused in the socle of two of the Roman temples on the Upper Terrace (Building T–U:19 and Building T–U:22). The blocks may originally have belonged to the Archaic Oikos on the Central Terrace, which is the only monumental Archaic structure known in the area. For the final publication of these blocks, see *Corinth* XVIII, iii, pp. 477, 480, nos. 98, 99, 101–105, 108, figs. 98, 99, 101–106, 109, pls. 53, 55:b.

93. One block is reused in the east wall of the late phase of the Sacred Spring. Another block, which seems to have formed part of a stairway or krepidoma, lies in a small block field west of the Babbius Monument in the Forum area. A third block, possibly from a Doric epikranitis, was found in the Sanctuary of Demeter and Kore; see *Corinth* XVIII, iii, p. 338, note 4, p. 464, no. 63, fig. 85.

94. These are reported for the first time in Menadier *1995, pp. 16–17, fig. 9.

95. Menadier *1995, p. 17.

96. A-1005 and a Doric capital from the West Building at the Argive Heraion (ca. 530 B.C.) are, to my knowledge, the earliest architectural elements provided with lewis cuttings. It is not until the late 6th century that the use of the lewis becomes widespread in Greek construction; lewis cuttings have been found, for example, on blocks of the Alkmaionid Temple at Delphi, the Megarian and Geloan Treasuries at Olympia, and the later Temple of Aphaia on Aigina. For discussion of the use of lewis irons, see Orlandos *1958, pp. 172–175; Martin *1965, pp. 216–219; Coulton *1974, p. 7.

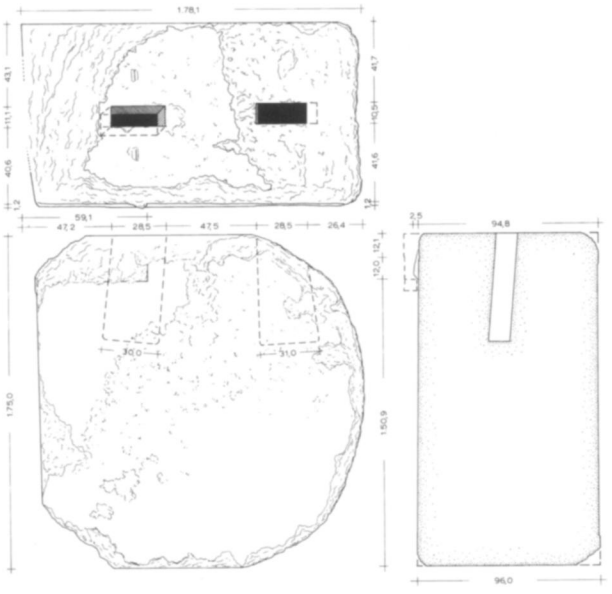

FIGURE 7.15. *Epistyle block of the Great Temple*

most abundantly attested, these cuttings are approximately 4–7 cm wide, 7–11 cm high, and 6–12 cm deep, and are centered at the bottom of the joint surfaces (Fig. 7.12).[97] Their purpose was to allow the end of a crowbar to extend well beyond the lower edge of the block in order to shift the outer end of the block laterally to the correct alignment. One would also expect to find pry cuttings that would have facilitated the shifting of the inner ends of blocks as they came into contact with the previous blocks set in place, but so far I can positively identify only one such cutting, which appears at the east end of the easternmost orthostate of the north wall of the fountain house of the Sacred Spring.

In the Corinthia, as elsewhere in the Greek world, masons concerned with the precise positioning of elements within their buildings made use of incised setting lines to serve as guides during the course of construction. From what little survives of Corinthian Archaic buildings, it is not surprising that relatively few setting lines exist, but they are sufficient to show a broad range of applications. In the Temple of Hera Akraia at Perachora, pairs of parallel lines on the tops of the interior foundation blocks mark the lines of the sub-stylobate courses of the cella.[98] In the same building, a line on the top of a metope block presumably marks the location of a joint between two geison blocks,[99] and lines on the top of two horizontal geison blocks and on the bottom of three raking geison blocks indicate the front plane of the tympanum.[100] On the top of a geison block of the Great Temple near the Gymnasium, two lines may have been used to mark the positions of eaves tiles or of a wedge-shaped supporting block beneath the tiles (Fig. 7.15).[101] On an epistyle block associated with the Apsidal Building near the Sacred Spring, two parallel lines on the top mark the front face of the triglyphs and metopes (Fig. 7.14).[102] On a Late Archaic Doric capital reused in the Diolkos, a setting line on the top of the abacus marks the front face of the epistyle, while a short vertical line on the face of the abacus marks the midpoint.[103] Finally, on an unidentified step block now lying at the west end of the Forum, a single line running the length of the top of the block apparently indicates the front of the next higher step.[104]

FOUNDATIONS

"Monumental" Archaic structures built in Corinth after the 7th century are founded on bedrock.[105] In most cases it would appear that the setting of foundations on or into bedrock was not a great undertaking, since bedrock usually lay close to the ancient ground levels. In some cases, however, as for example along the south side of the Temple of Hera Akraia at Perachora and along the north side of the Oikos in the Sanctuary of Demeter and Kore, rather deep foundations were required to reach bedrock. At many places, excavation has laid bare the bedrock underlying Archaic Corinthian buildings and revealed carefully cut beddings for the foundations.[106] Sadly, for some buildings these beddings provide most or all of our evidence for the structure above. In areas where the bedrock at a building site is level, as, for example, in the Asklepieion, the rock-cut beddings may be cut to a more-or-less consistent level throughout (see Fig. 7.44), but where there is variation in the level of the bedrock,

97. Apart from those on the Temple of Apollo, I know of only one other cutting of this type; it appears on the easternmost block of the top course of the south wall of the Temple of Hera Akraia. Though it is generally smaller and considerably shallower than the cuttings on the Temple of Apollo, it presumably served the same function.

98. *Perachora* *I, p. 80, pls. 125, 138; Menadier *1995, p. 8. Only the southern line of the northern foundation is now vaguely discernible.

99. Menadier *1995, p. 61. The block can no longer be located, but the line is recorded in a drawing in Piet de Jong's field notebook (British School at Athens archive). The position of the line, some 0.20 m from the left end of the metope, would imply that the joint between the geison blocks coincided with the left end of the mutule above the metope.

100. *Perachora* *I, p. 85; Menadier (*1995, p. 50) records a setting line on the top of geison HG 3, but does not show it in the illustration of the block (fig. 44). On the other hand, the illustration of HG 2c (fig. 43) does indicate a line.

101. The block is published in Wiseman 1967a, pp. 29–30, figs. 13–15, but the lines are not mentioned.

102. Williams 1969a, p. 41, fig. 2.

103. The capital appears in Williams 1984b, p. 75, fig. 1. The incised lines are not mentioned in the description.

104. This is the same block with U-shaped rope hole that was mentioned above.

105. Rhodes (1984, p. 14) has observed that the founding of structures on bedrock is not regularly the case earlier.

106. Rhodes 1984, pp. 14–16.

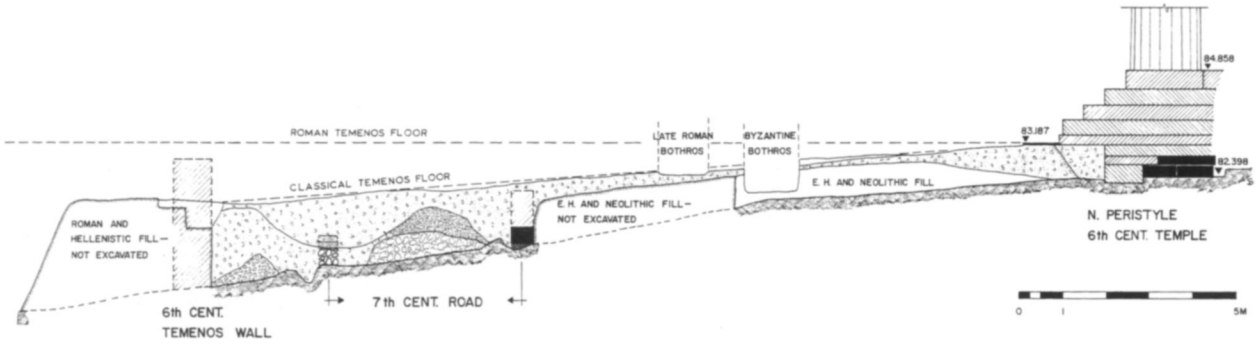

FIGURE 7.16. *Section of the north krepidoma (restored) of the Temple of Apollo and part of the terrace north of the temple.* After Robinson 1976a, fig. 3

as, for example, at the site of the Temple of Apollo, the beddings may be stepped to correspond to the coursing of the foundations (see Fig. 7.22).

For the most part, foundations comprise a socle or euthynteria set directly upon bedrock or upon a foundation wall, usually constructed of ashlar masonry. The socle and foundation wall are generally rather thicker than the superstructure they support and so project both at the front and back. One apparent exception to this is in the Temple of Apollo, where the outer face of the krepidoma foundation in places falls well short of the restored outer line of the krepidoma (Fig. 7.16). This anomaly, which leaves the lower steps of the krepidoma unsupported, is puzzling and leads one to doubt whether the lower steps are part of the original design (see below, p. 115). In some instances, such as along the back wall of the Temple of Hera Akraia at Perachora, the top of the socle is trimmed as if it were meant to be seen above ground level, but in other instances, for example in the Stele Shrine to the west of the South Stoa, the outer face of the socle is left very irregular, as if it were meant to be buried below ground level.

Within foundations, clamps and dowels seem not to have been used, and, as one might expect, the finish of the blocks is more cursory than in the visible portions of buildings.

ROOFS

Corinthian buildings of the Archaic period typically had wooden roof structures covered with terracotta revetment produced by Corinth's own tile manufacturers.[107] Until the third quarter of the 6th century B.C., the revetment seems normally to have consisted of the following components: (1) normal combination tiles (comprised of angular cover-tile elements attached to the sides of flat pan-tile elements), which were placed in overlapping fashion over the broad expanses of the roofs; (2) combination eaves tiles, on which the ends of the cover-tile elements were decorated with antefixes; (3) combination ridge tiles, which folded over the peak of the roof; and (4) sima tiles, which provided a gutter above the gabled ends of buildings. From the evidence of the Corinthian roofs installed on the "Byzantine" and Megarian treasuries at Olympia, it appears that from about 540 or 530 B.C. Corinthian roofs (at least those made for export) were designed with separate pan and cover tiles, except at the eaves and ridge, where combination tiles continued to be employed.[108]

Painted decoration on Corinthian roofs consists of simple bold patterns, discreetly restricted to the fascia and soffit of the eaves tiles, as well as to antefixes, simas, and ridge palmettes. It has been assumed by most scholars since Payne that the addition of painted decoration to terracotta roofs first appeared at Corinth in the 7th century B.C., at or before the time it appeared elsewhere.[109] There is, however, no very solid evidence for the date of the earliest decorated roofs at Corinth, and the chronology of decorated antefixes espoused by Billot would require lowering the date of the first decorated roofs to about 580 B.C.[110]

Whatever their starting date, Corinthian decorated roofs, down to about the mid 6th century B.C., usually had pentagonal antefixes along the eaves and cavetto raking simas ornamented with guilloche and tongue patterns (Fig. 7.17).[111] Toward the middle of the 6th century B.C., antefixes developed larger, more complex palmette ornaments, and simas were given an ovolo profile and a lotus and palmette ornament, as can be seen on the roof of the Temple of Apollo (Fig.

107. Archaic Corinthian roof revetment has received considerable attention in recent years. For a commentary on the roof revetments found at Corinth, see Roebuck 1990; for developmental studies of the Corinthian revetment system, see Heiden 1987 and Winter *1993, pp. 19–94. For Archaic Corinthian roofs at Delphi, see Le Roy *1967, pp. 23–62; for those at Olympia, see *OlForsch* *XXIV, pp. 12–36, pls. 1–15.

108. Winter *1993, pp. 21, 28, 31, 82.

109. Winter (*1993, p. 20) puts the beginning of decorated roofs at Corinth "as early as 620 B.C., or perhaps as late as 600 B.C." A similar chronology is supported by Le Roy (*1967, pp. 36–37) and Roebuck (1990, p. 51). Dates of the mid 7th century and earlier, as proposed by Williams (1978b, pp. 347–349) and Payne (1931, pp. 252, 259–260; *Perachora* *I, p. 115), now seem unlikely.

110. Billot *1990, pp. 122, 125–126.

111. For a typical Corinthian roof of this early period, see Winter *1993, pp. 21–24, fig. 2.

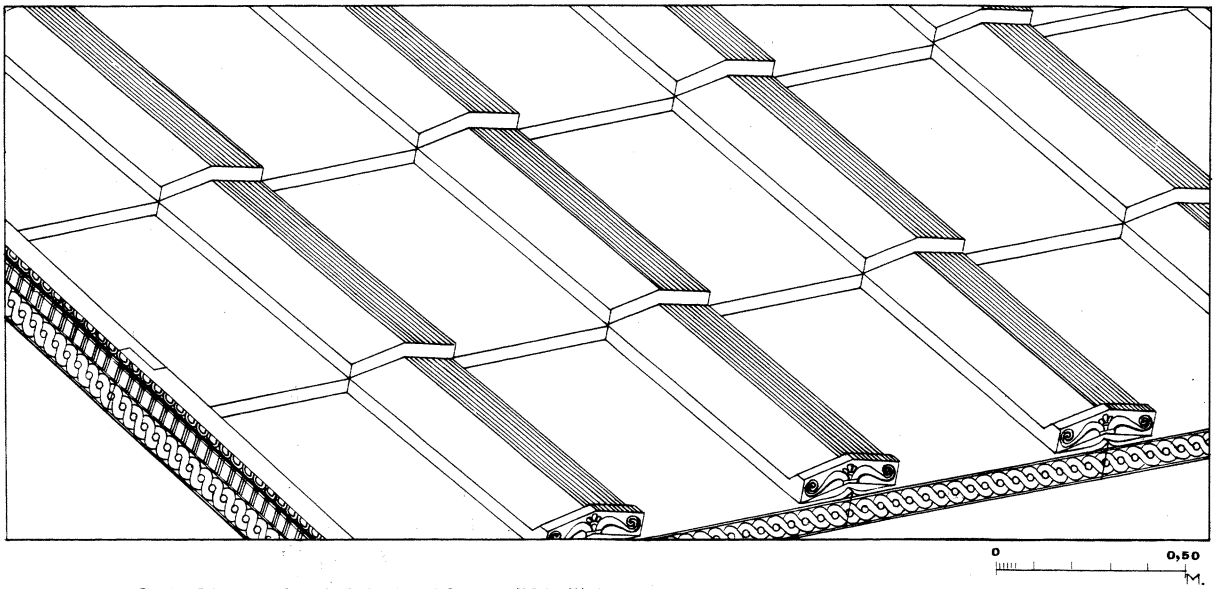

FIGURE 7.17. *Corinthian roof at Delphi (roof 9), ca. 580–570* B.C. After Winter *1993, fig. 2

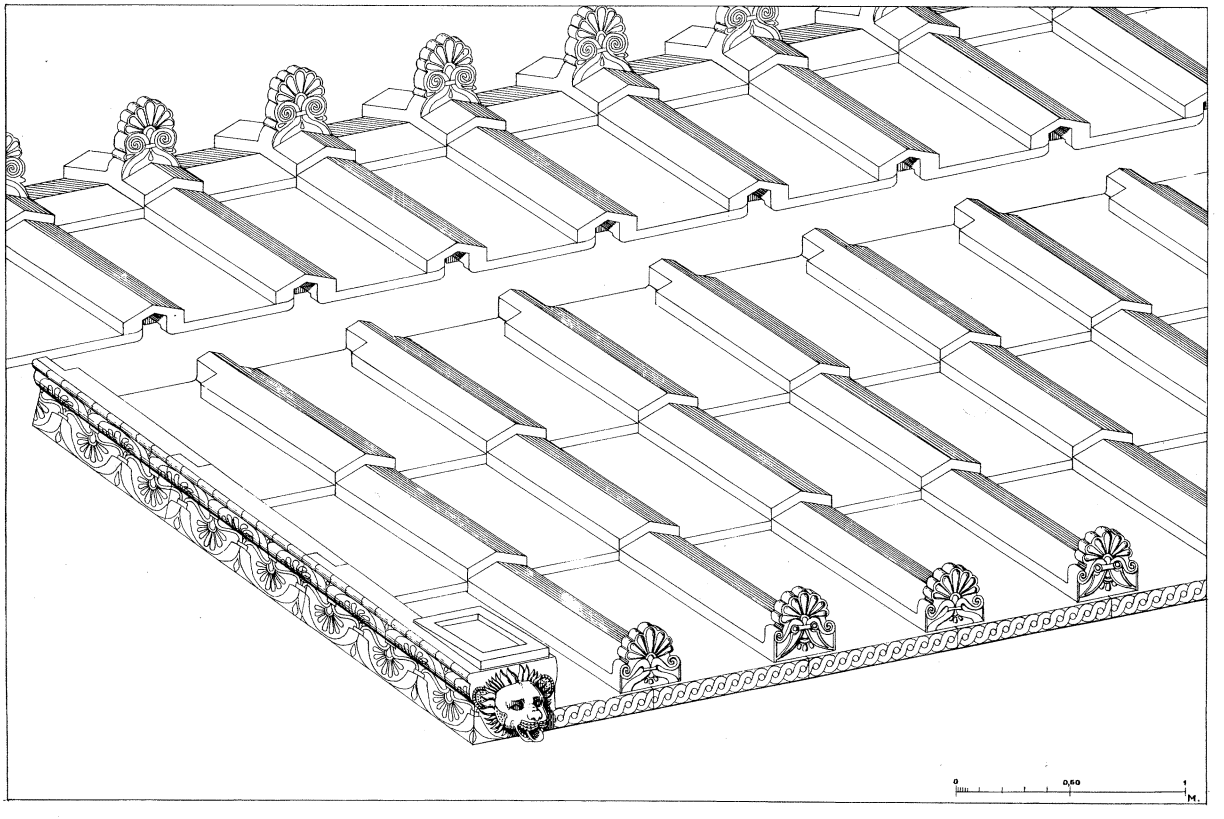

FIGURE 7.18. *Roof of the Temple of Apollo, ca. 550–540* B.C. After Winter *1993, fig. 3

7.18).[112] At this time too, it appears, palmettes were added as decorative elements to ridge tiles.[113] Subtle changes in the form and decoration of simas and antefixes continued through the second half of the 6th century B.C., and before the end of the century, the meander became the usual decoration along the face of the eaves tiles. The dark-on-light color scheme that had been used throughout the 6th century B.C. was superseded at about the turn of the century by a light-on-dark scheme reminiscent of, and

112. Winter *1993, pp. 24–28, fig. 3.

113. Winter *1993, p. 85.

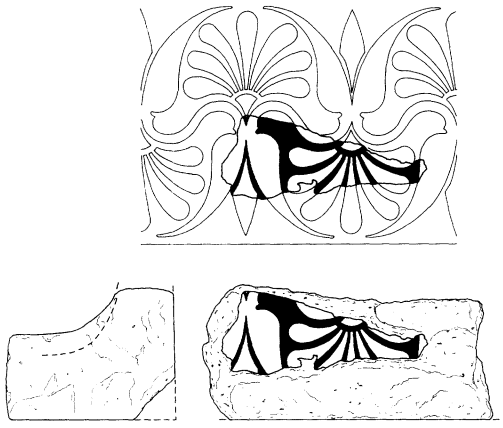

FIGURE 7.19. *Fragment of terracotta raking sima from east of the Theater*

perhaps influenced by, red-figure vase painting (Fig. 7.19).[114]

In addition to the roof revetment of the typical Corinthian system just described, there are at Corinth some remains of early-6th-century B.C. roofs (antefixes) that belong to a roofing system that seems most likely to have developed in the Argolid.[115] Unlike the roofs of the typical Corinthian system, the pan and cover tiles are separate elements, and the antefixes have a form that appears to have developed from the three-peaked antefix common on the earliest roofs in the Argolid and on neighboring Aigina. Whether these roofs were manufactured in the Corinthia under foreign influence or were imported from the Argolid remains to be determined.[116]

Although Corinth seems to have been a pioneer in the creation of terracotta roof tiles in the first half of the 7th century B.C., its role in developing and spreading new designs in the latter half of the 7th century and in the 6th century appears far more limited than was once believed. Studies by Williams and Winter have shown that Corinthian influence in the development of Italian roofing systems, which was once generally accepted on the basis of literary testimony, is unsupported by archaeological evidence.[117] Winter and Mertens-Horn have also convincingly argued against the traditional notion that Corinthian artisans were directly responsible for the production of the early roofs at Kalydon and Thermon.[118]

Winter's criteria for identifying roofs of Corinthian manufacture, which include technical as well as stylistic features, lead her to conclude that roofs produced by Corinthians rarely appear outside the Corinthia, except at the Panhellenic sanctuaries at Delphi and Olympia. Because they deviate in one way or another from the pure Corinthian system, a number of roofs, at Aigina, Troizen, Athens, and elsewhere, that were previously identified as Corinthian are assigned by her to local Corinthianizing workshops in northwestern Greece, central Greece, the Argolid, and perhaps Sikyon. Though technical discrepancies between these roofs and those at Corinth seem generally to justify their dissociation from Corinth, there are some questionable cases. An example is the cavetto sima of the early Temple of Aphaia on Aigina, which Winter dissociates from Corinth because of the use of nails to secure the sima to the roof and because of the application of a flat lateral akroterion to the top of the cavetto. Although it may be true that neither nail holes nor flat akroteria are attested at Corinth, there is not really adequate evidence at Corinth to prove that they were never used there.[119]

114. Le Roy *1967, p. 125; Winter *1993, p. 48.

115. Roofs of this type are represented by the following antefixes: FA-547 from the Sanctuary of Demeter and Kore (Williams 1978b, pp. 347–348, pl. 155; Roebuck 1990, pp. 53–54, pl. 5; Winter *1993, p. 163, fig. 19), FA-24 and FA-404, each without specific provenance (Williams 1978b, pp. 348–349, pl. 155; Roebuck 1990, pp. 53–54, pl. 5; Winter *1993, p. 163). Though roofs of this type have been found outside the Argolid at Athens, Delphi, and Corinth, I follow Winter in identifying it as Argive, because a number of examples have been found in the Argolid and at nearby Nemea and because the most obvious precursors, the roofs with simple three-peaked antefixes, are found almost exclusively in the Argolid and on neighboring Aigina. For a detailed discussion of the development of the Argive roofing system, see Winter *1993, pp. 149–170.

116. Scientific analysis of the clay used for the elements might be helpful in the determination of their origin. Williams (1978b, p. 349) observes that the clay of FA-547 is similar to that of the "the earliest roof tiles of Corinth." Billot (*1990, p. 16) reports that the clay of FA-24 is Corinthian, while Winter (*1993, p. 163, note 27) claims that it is "unparalleled among other Archaic tiles at Corinth, while close to that of the patently local raking sima of Type I, variant 2b, from Argos."

117. Williams 1978b, pp. 345–350; Winter *1978, pp. 28–32.

118. Winter *1993, pp. 110–111; Mertens-Horn *1978. The traditional association of Corinth with Aitolian terracotta roofs can be found in Koch *1915, pp. 111–112 and Payne 1931, pp. 234–235, 249–250, 253–259. For Payne the association was supported in part by the belief that the Corinthian alphabet was used to write installation instructions on tiles at Kalydon and to label figures on terracotta metopes at Thermon. More recent study of Greek epichoric alphabets has shown, however, that the inscriptions in question reflect the local Aitolian alphabet, which shares some distinctive letter-forms with Corinth; see Jeffery *1990, pp. 225–226; Guarducci *1967, pp. 211–214. Resisting the move to dissociate all the Aitolian material from Corinth, Roebuck (1990, pp. 54–55) has argued in defense of the Corinthian authorship of the so-called lion roof and *blassgelben* roof at Kalydon. Heiden (1987, pp. 47–51, 58–59) also continues to associate the Aitolian roofs with a Corinthian workshop on the basis of the light clay slip on their surfaces, which he thinks derives from Corinth.

119. Since undecorated portions of roof revetment found during the old excavations were not systematically kept, evidence for occasional use of nails to secure simas may unintentionally have been eliminated. As for flat akroteria, so far as I know, there is no portion of the lower end of a cavetto sima preserved at Corinth from which we might determine that such akroteria were or were not a part of early Corinthian roofs.

INDIVIDUAL BUILDINGS

TEMPLES

Temple of Apollo

This Archaic temple, prominently located on the limestone ridge that crosses the center of the ancient city, is perhaps Corinth's most recognizable landmark (Fig. 7.20). Portions of the west end of the temple, which remain standing to the present day, attracted the attention of many early travelers to Greece, beginning with Cyriacus of Ancona in the 15th century.[120]

Exploration of the rest of the building, which had generally been plundered to the rock-cut foundation trenches, was begun by Dörpfeld in 1886 and continued by Richardson and the American School of Classical Studies between 1896 and 1901.[121] These investigations confirmed that the temple was originally a Doric peripteros with a peristyle of 6 × 15 columns, within which complementary distyle-in-antis porches gave access to a larger rectangular eastern chamber and smaller square western chamber (Fig. 7.21). The identity of this temple is not known with certainty, but Richardson's identification of it as the Temple of Apollo mentioned by Pausanias seems most probable.[122] As for its date, the stratigraphic evidence reported by Weinberg in 1939 and by Robinson in 1976 suggests that construction began soon after the 560s B.C.[123] There are no indications of a long delay in the completion of the project, and the roof, presumably one of the last portions of the building to be executed, has been dated to ca. 550–540 B.C.[124]

Since Stillwell's publication of the Temple of Apollo in 1932, which still provides the most complete account of the building, a number of observations have been made that affect our understanding of the temple's design and its place in the history of Greek architecture. Particularly significant was the work of Shaw in 1970. While surveying and drawing the in situ remains of the Temple in conjunction with Robinson's excavations on Temple Hill, he made two important

FIGURE 7.20. *Temple of Apollo, view from the northeast*

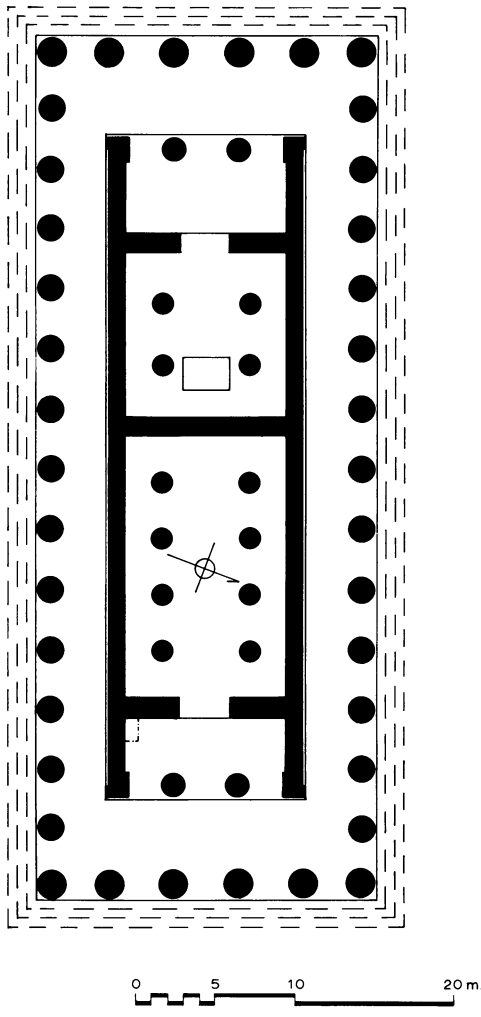

FIGURE 7.21. *Restored plan of the Temple of Apollo.* Adapted from *Corinth* I, fig. 82

120. An account of the observations of early travelers can be found in Powell 1905, pp. 45–51, and *Corinth* I, pp. 126–132.

121. Reports of these excavations: Dörpfeld 1886; Powell 1905, pp. 51–63.

122. For the identity of the temple, see Richardson 1897, p. 479; *Corinth* I, p. 132; *Corinth* I, iv, p. 3, note 2; Wiseman 1979, pp. 475, 530; Salmon 1984, p. 219, note 131; Bookidis in this volume, p. 258.

123. The latest pottery from the construction fill excavated by Weinberg was dated by him to early in the third quarter of the 6th century: Weinberg 1939a. The latest pottery from the construction fill excavated by Robinson was dated by Lawrence to ca. 570–560 B.C.: Robinson 1976a, p. 217.

124. Winter *1993, pp. 24, 28. This dating of the roof is not, however, independent of the presumed date of the rest of the building.

FIGURE 7.22. *Temple of Apollo, foundation bedding for the south wall (arrows point to survey marks)*

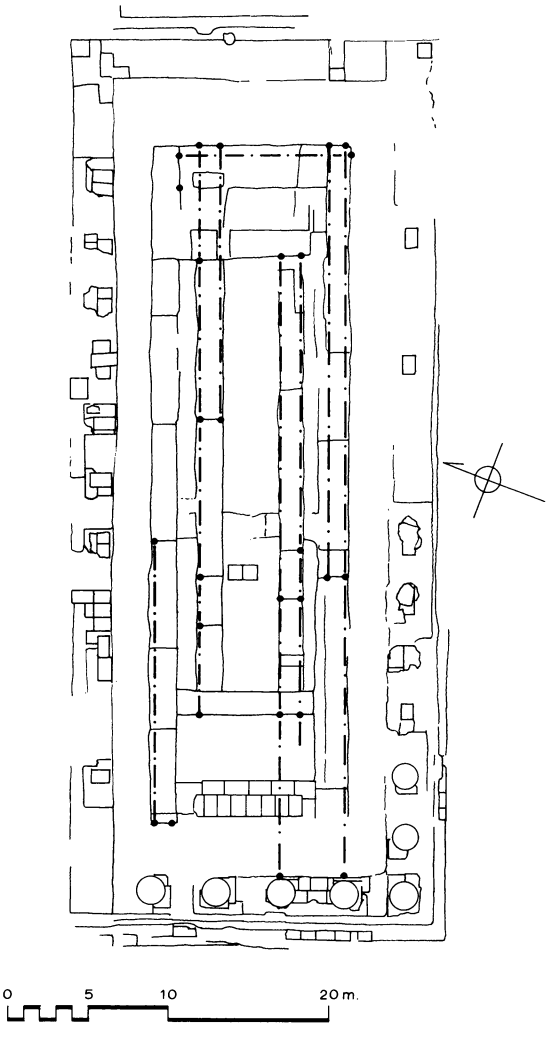

FIGURE 7.23. *Plan of the Temple of Apollo showing the locations of ancient survey marks (marked by black dots)*

observations, which were duly recorded by Robinson in his excavation report. One was the discovery of marks cut in the bedrock to serve as guides for laying out the foundations of the temple. As the photograph in Figure 7.22 shows, the marks are short vertical lines cut into the upper edges of the ends of beddings or of steps within beddings. Since Robinson's brief report of this finding did not specify how many cuttings were identified or where exactly they were found, in 1993 I undertook, with the help of David Romano and his surveying crew from the University of Pennsylvania, to locate all possible marks and record their positions.[125] The results appear in Figure 7.23, where the locations of the marks are superimposed on Stillwell's actual-state plan. The lines connecting the marks do not exist in reality but are added to the drawing to show the purpose of the marks for establishing the outlines of the foundations and to illustrate the accuracy of the placement of the marks along parallel trajectories bearing 69° east of north.

Shaw's second observation was that the level of the tops of the column shafts of the west facade rise in elevation above sea level by about 2 cm from the south corner to the center.[126] This observation confirmed earlier claims of Dörpfeld, Powell, Stillwell, and Dinsmoor that there is an intentional curvature of about 2 cm in the stylobate of the west facade.[127] In response to lingering doubts about this curvature, expressed by Mertens and Bankel,[128] I set out in 1993, again with the help of Romano and his surveying crew, to reexamine the horizontal coursing of the building.[129] Elevations measured with a computerized theodolyte at a discrete number of points along the west end of the building confirmed earlier observations of a curvature of about 2 cm initiated within the stylobate, but showed, contrary to Shaw's findings, that this curvature continued up through the column capitals into the entablature. The measurement of elevations along the south flank of the temple revealed a downward slope at the west end, but no consistent change in level east of the second column. This suggests that there was no true curvature along the flanks, only a downward inclination at the ends.

These observations, taken together, would seem to indicate that the Temple of Apollo marks an early experimental stage in the development of the refinement of curvature. Whether this was the very first ex-

125. Participants in the survey were Philip and Leslie Kaplan and Shawna Leigh.

126. This observation is recorded in Robinson 1976a, p. 235.

127. Dörpfeld 1886, p. 303; Powell 1905, p. 56; *Corinth* I, p. 119; Dinsmoor *1950, p. 90.

128. Mertens *1984, p. 147, with note 405; Bankel *1993, p. 171.

129. A fuller report of this survey and its results has appeared in Pfaff 1999b.

FIGURE 7.24. *Interior columns of the Temple of Apollo reerected near the west end of the South Stoa*

FIGURE 7.25. *Temple of Apollo, surviving blocks of the rectangular foundation in the rear chamber*

periment with curvature is not known, but it is so far the earliest attested. Curiously, no other refinements, apart from corner contraction, have been observed in the temple.[130] My examination of the columns confirms earlier observations that the column shafts diminish along straight lines and so lack the refinement of entasis.[131] My survey of the standing columns of the west facade in 1993 revealed a slight and not entirely consistent inclination of the shafts to the west, i.e., away from the building, but this is hard to explain as an intentional refinement and seems more likely to be an error—resulting, perhaps, from a failure to compensate for a sloping stylobate.

During the late 1960s and 1970s Robinson excavated a deep quarry immediately east of the temple and concluded that it was used in the early 1st century A.C. to supply material for extensive repairs to the temple.[132] Although further investigation is required to support this claim,[133] it is consistent with other evidence for extensive renovation of the temple in the Roman period. In 1904 a Doric column capital found near the South Stoa was tentatively identified by Heermance as pertaining to the cella colonnade of the Temple of Apollo.[134] In 1933 other capitals of the same series were discovered near the west end of the South Stoa, and a row of monolithic column shafts of corresponding scale were found in situ, extending northward from the northwest corner of the South Stoa (Fig. 7.24). Associating the capitals and shafts, Broneer concluded that the columns were transplanted from the interior of the cella of the Temple of Apollo to their current location in the Roman period.[135] This explanation of the origin of the Archaic Doric columns by the South Stoa has been generally accepted,[136] and the date of their transfer has been fixed within the first half of the 1st century A.C. by Robinson's and Williams' excavations in the area of the reset columns.[137] From the scale of the original interior columns it is clear that they must have constituted the lower of two tiers of freestanding columns. What kind of columns, if any, took their place in the Roman renovation is not clear.

That such a dramatic alteration as the removal of the interior colonnades was carried out in the Early Roman period raises questions about other possible changes to the interior. Is it possible that the division of the interior into two distinct chambers was part of the Roman alteration? Alternatively, was the division of the interior an original feature that was eliminated in the renovation? Is the rectangular foundation at the rear of the west chamber original or a later addition? Although I am inclined to accept the traditional view that the cross-wall and rectangular foundation are original, the evidence is not decisive.

For the division of the interior space the only evidence available for scrutiny is the rock-cut foundation trench for the cross-wall. It is slightly shallower than the adjacent cuttings for the north and south walls, which must be original, but in all other respects it is indistinguishable from them. With regard to the rectangular foundation in the rear chamber, which is usually interpreted as the foundation for a cult statue or some kind of treasure chest (Figs. 7.21, 7.23, 7.25),[138] it is reasonably clear from the tooling and the form of

130. *Corinth* I, pp. 119–120. As is often the case, the contraction was insufficient, requiring a slight increase in the width of the metopes near the corner.

131. *Corinth* I, p. 120; Dinsmoor *1950, p. 89.

132. Robinson 1976a, p. 237, pl. 49:b; 1976b, p. 254, fig. 13.

133. My own brief examination of the cuttings and blocks in the quarry failed to reveal conclusive evidence for the extraction of blocks specifically for the temple.

134. Heermance 1904, p. 439.

135. Broneer 1933, p. 566; *Corinth* I, iv, p. 155.

136. *Corinth* I, iv, p. 155; Robinson 1976a, p. 237; Williams 1984b, pp. 69–70, 74. The standard handbooks of Greek architecture (Dinsmoor *1950, Lawrence *1996, and Gruben *1986) fail, however, to take note of these columns.

137. Robinson 1976a, p. 237, note 106; Williams and Fisher 1976, pp. 124–137.

138. Dörpfeld 1886, pp. 301–302; Weickert *1929, p. 113; *Corinth* I, p. 115.

FIGURE 7.26. *Temple of Apollo, west facade (arrow points to euthynteria blocks with claw chisel marks)*

the anathyrosis of the two surviving blocks that these blocks are Archaic, not Roman, but it remains possible that they were old blocks reset in their current position. That these blocks were cut to conform to the irregular surface of the underlying bedrock instead of being provided with a level bedding like those that underlie most of temple's original foundations might suggest a different date for the rectangular foundation, but it might just as likely reflect the different function of the foundation.

Further evidence for Roman intervention can be seen in the few in situ euthynteria blocks along the west and south sides of the building. These blocks, shown in Figure 7.26, bear unmistakable claw chisel marks, characteristic of Roman workmanship at Corinth.[139] This evidence may indicate nothing more than the fact that old, damaged krepidoma blocks were replaced in Roman times, but it might indicate something more significant, namely that the four-stepped krepidoma, now restored at the southeast corner of the building, may not have been part of the original design but the result of a Roman alteration. From the observation that the lower steps of the four-stepped krepidoma would have projected beyond the krepidoma foundations on the flanks of the temple, as seen above in Figure 7.16, it seems all the more likely that the lower steps and euthynteria were additions to an original design with only a one- or two-stepped krepidoma, like that of most other 6th-century B.C. temples in mainland Greece.[140]

The roof of the temple has recently received attention in studies by Roebuck and Winter, who both examine the context of the roof within the general development of Corinthian roof revetment.[141] Winter's study includes as well the first graphic reconstruction of the roof, by Iliakis (reproduced here as Figure 7.18).[142] From the evidence now available, the roof of the Temple of Apollo provides the earliest example of the ovolo sima, which became the standard type of sima for Corinthian roofs through the second half of the 6th century B.C. and into the early 5th. The roof of the temple also provides the earliest examples of ridge palmettes yet identified.

FIGURE 7.27. *Epistyle Wall near the Gymnasium*

The Great Temple near the Gymnasium

Reused elements of this temple, consisting of a large fragment of a Doric column shaft and two fragmentary epistyle blocks, had been observed in the early 19th century in the so-called Epistyle Wall, near the Gymnasium at the north edge of the city of Corinth, where they remain visible today (Fig. 7.27).[143]

On the basis of these remains, Dinsmoor set out in 1949 to establish the main dimensions and date of the temple. He first observed that one of the epistyle blocks, illustrated in Figures 7.15 and 7.28, preserved slight remains of its crowning tainia and the right end of a regula. Believing that the block preserved its original left end, Dinsmoor concluded that the distance from that end of the block to the right end of the regula was equivalent to half the total length of a complete regula. Assuming the restored regula length to

139. This is confirmed by extensive personal observation at Corinth. Elizabeth Gebhard, who was initially skeptical of my conclusion that the claw-chiseled elements from the Temple Poseidon at Isthmia were likely to be Roman rather than 4th century, has since been convinced; she now believes that there was an extensive Roman renovation of that temple in the 1st century A.C.; see Gebhard and Hemans *1998, p. 10.

140. Interestingly, Weickert (*1929, p. 114) states, without offering any explanation, that the Temple of Apollo had only a euthynteria and stylobate.

141. Roebuck 1990, pp. 50, 55–58; Winter *1993, pp. 24–28, 35, 54, 58, 71, 73, 81, 83–85.

142. Winter *1993, fig. 3.

143. References to early observers, such as Clarke, Leake, Pouqueville, Curtius, and Vischer, are provided in Dinsmoor 1949, pp. 104–105. Dinsmoor was mistaken in believing that the so-called Epistyle Wall formed part of a 17th-century Venetian fortification; excavation has shown it to be late antique; see Wiseman 1967b, pp. 411–412; Gregory 1979, p. 276.

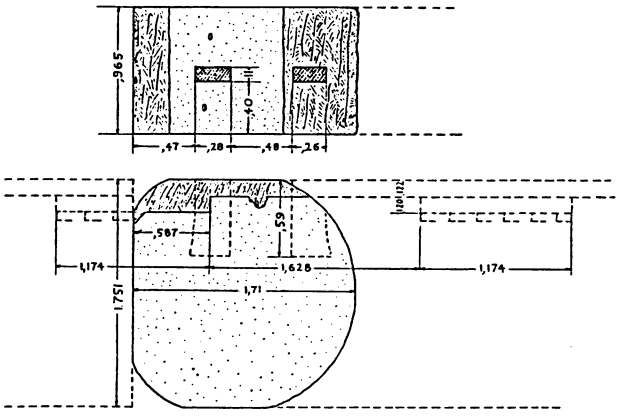

FIGURE 7.28. *Dinsmoor's drawing of epistyle block of the Great Temple. Cf. Fig. 7.15.* After Dinsmoor 1940, fig. 1

be equal to the width of the triglyphs of the frieze, as is normally the case in a Doric entablature, Dinsmoor estimated the dimensions of both the triglyphs and metopes. From these dimensions he proceeded to estimate the interaxial spacing of the columns and then the height and lower diameter of the columns. These restored dimensions proved to be greater than the corresponding dimensions of the Temple of Zeus at Olympia and so indicated to him that the Corinth temple was the largest temple in the Peloponnese. From the proportional relationships, such as the height of the epistyle to the restored interaxial spacing of the columns, Dinsmoor concluded that the temple should date to the latter half of the 5th century B.C.

Apparently unknown to Dinsmoor, de Waele's excavations from 1929 to 1934 in the nearby area of the Asklepieion brought to light other small fragments that may be assigned to the Great Temple, including two small fragments of Doric column shaft fragments, seven mutular guttae, and marble roof tiles. Excavations directed by Wiseman in the area of the Orthostate Wall in the 1960s yielded other very large architectural elements, most of which were published in Wiseman's excavation reports of 1967 and 1969.[144] These elements include several Doric column shaft fragments, three fragments of Doric capitals, small fragments of regulae and guttae from the epistyle, one large Doric geison fragment (Fig. 7.29), small fragments of mutules and guttae from the geison, and a fragmentary akroterion base (Fig. 7.30).

Although initially disposed to link these large-scale architectural elements with Dinsmoor's "largest temple in the Peloponnesos," Wiseman was eventually dissuaded from doing so by the evidence of the newly discovered geison block and capital fragments.[145] The geison block preserved the full length of one via and

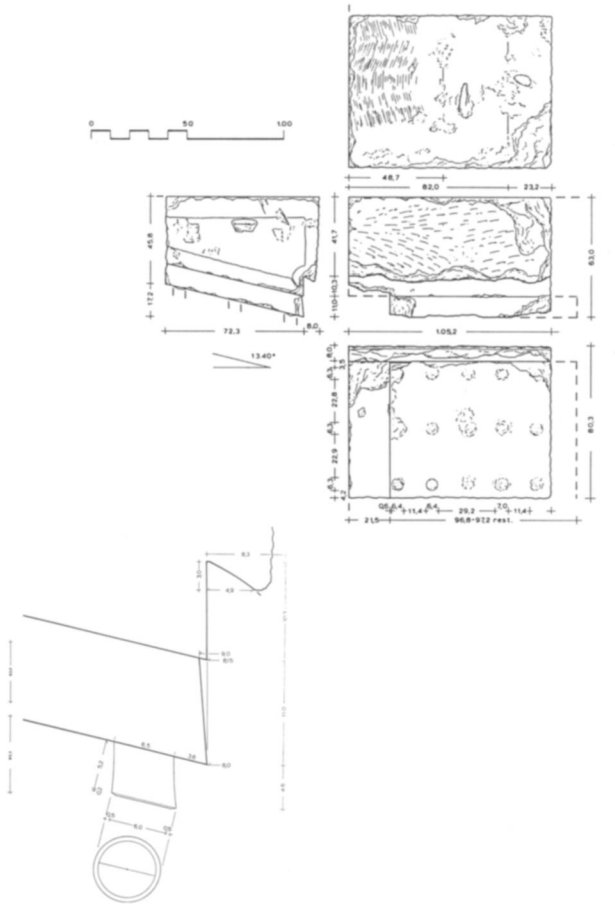

FIGURE 7.29. *Horizontal geison block of the Great Temple*

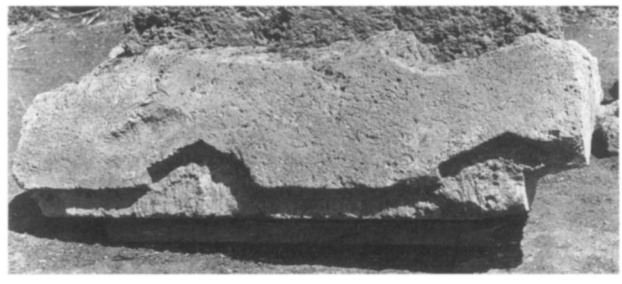

FIGURE 7.30. *Central akroterion base of the Great Temple, side*

144. Wiseman 1967a, pp. 28–31, figs. 12–15, pl. 12:c–f; 1967b, pp. 412–413, figs. 4–5, pls. 85:g, 87:a, c–g; 1969a, pp. 94–96, fig. 14, pl. 31:a–b.

145. Compare Wiseman 1969a, p. 96, and Wiseman 1978, p. 84.

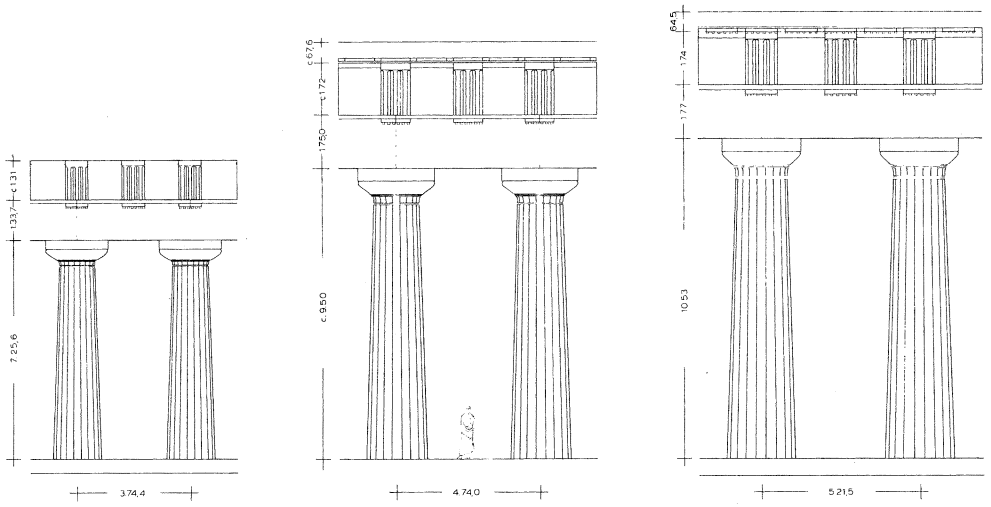

FIGURE 7.31. *Restored elevations of the exterior orders of the Temple of Apollo at Corinth, the Great Temple at Corinth, and the Temple of Zeus at Olympia*

enough of the length of one mutule to allow a close approximation of the length of the frieze unit and the interaxial spacing of the columns. That interaxial spacing was, however, about 0.80 m shorter than the restored interaxial of Dinsmoor's temple. The capital fragments, whose profiles were inaccurately oriented in the published illustration, suggested to Wiseman that the temple should date to the first half of the 6th century B.C., over a hundred years earlier than the date proposed by Dinsmoor. Because of the apparent disparity in both scale and date between Dinsmoor's temple and the newly discovered elements, Wiseman concluded that there were *two* colossal temples represented by the architectural members in the area of the Epistyle Wall.

My own investigation of this matter, which began in 1992, indicates that there was really only one colossal temple. It also indicates that the temple was not quite so large as Dinsmoor estimated, and that it was constructed not in the early 6th or late 5th century B.C.—the dates advanced by Wiseman and Dinsmoor—but in the late 6th century. While photographing the front of the large epistyle block that Dinsmoor had studied and illustrated, I noticed that the preserved left end of the block seemed to be oblique to the top and bottom (see Fig. 7.15). Further examination confirmed that the end of the block was indeed oblique. It also revealed that the end of block had no anathyrosis, as one would expect of a finished joint face; instead, the surface was slightly wavy, as the result of having been cut by a saw. From these observations it was clear that the preserved left end was not the original end of the block but simply the point at which it was sawn for secondary use.[146] This fact is of course highly significant for the restoration of the building, for if the left end of this epistyle block is not original, then the regula length restored by Dinsmoor and all other dimensions derived from it are invalid. Invalid, too, is Dinsmoor's proportional analysis and the date of the building he derived from it. The few reliable dimensions of the epistyle block, such as its height and depth, are perfectly suited for the scale of the geison block and other elements found by Wiseman.

This correspondence in scale, combined with the fact that all these pieces were found in close proximity to one another, leads inevitably to the conclusion that they all derive from one enormous Doric temple, probably located nearby. The scale of this temple, as indicated by all the extant elements, was not as great as Dinsmoor had proposed. As the restored elevations in Figure 7.31 show, the scale was somewhat smaller than that of the Temple of Zeus at Olympia: the height of the epistyle was 0.02 m smaller, and the intercolumniations were approximately 0.48 m smaller. That the scale is, nonetheless, over 25% larger than the Temple of Apollo at Corinth is impressive and should indicate that this temple had extraordinary significance for the ancient Corinthians. Since no foundations for the temple have yet been discovered, the plan and overall dimensions of the temple cannot be determined. It is, however, all but certain that a temple of this scale would have been peripteral, and it is highly likely that it would have had a hexastyle facade. Although the overall dimensions of this temple cannot yet be determined, from the fact that the scale of this temple is smaller than that of the Temple of Zeus at Olympia, it seems prudent to avoid referring to this temple as "the largest temple in the Peloponnesos," as has been common since the publication of Dinsmoor's article. Until such time as its true identity is revealed, I would suggest that the title "Great Temple" be employed as a convenient and appropriate designation for Corinth's largest Greek temple.

146. The surfaces of other blocks reused in the so-called Epistyle Wall also show unmistakable signs of sawing.

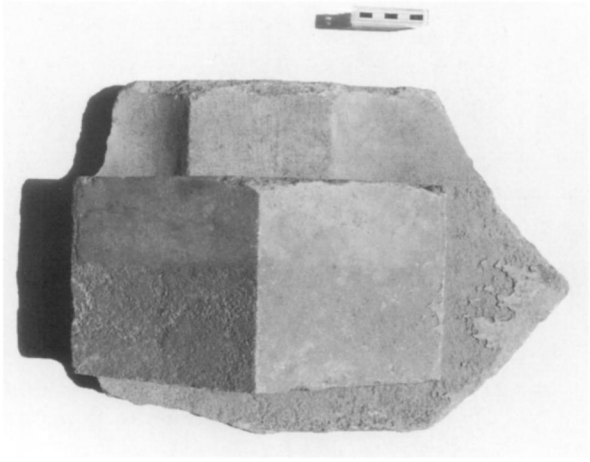

FIGURE 7.32. *Marble eaves tile of the Great Temple (A-1052): top*

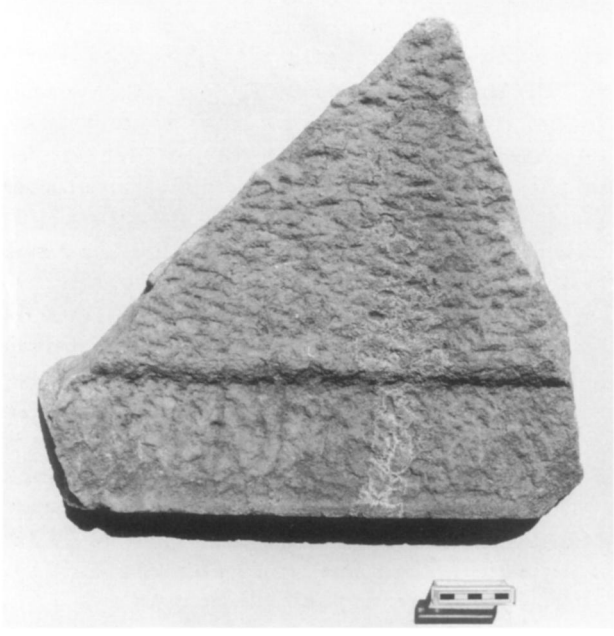

FIGURE 7.33. *Marble pan tile of the Great Temple (A-631): bottom*

Although the prestige of this temple is most obvious from the structure's enormous scale, it is also evident from the fact that the building's roof was covered with expensive white marble tiles instead of the usual terracotta revetment. Cuttings for cover tiles in the side of the surviving akroterion base fit precisely the dimensions of the cover tile stopper on top of a fragmentary marble eaves tile found in the Asklepieion area (Figs. 7.30, 7.32).[147] This correspondence strongly suggests that both elements belong to the same roof, which had exceptionally large cover tiles (approximately 30 cm wide), appropriate for an exceptionally large building. That the whole roof, and not just the

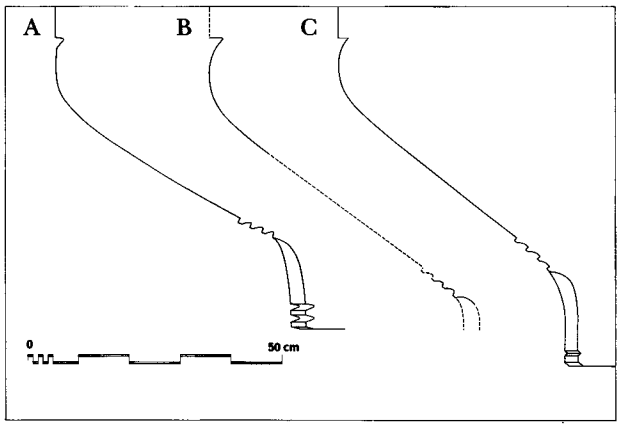

FIGURE 7.34. *Profiles of the exterior column capitals of Temple of Apollo (a) and the Great Temple (b) at Corinth, and the Alkmaionid Temple of Apollo at Delphi (c)*

eaves, was revetted with marble tiles is indicated by a fragmentary pan tile, made of the same white marble and found in the same area as the eaves tile (Fig. 7.33). The preserved lower edge, which is flanged to overlap the next lower tile on the roof, confirms that this could not be part of another eaves tile but must be a normal pan tile.

Of the decorated portions of the roof, nothing has yet been discovered with the possible exception of one fragmentary lion-head spout, which is of white marble similar to that of the tile fragments and of appropriately large scale. This fragment, a stray find which was discovered well to the north of the excavation areas at Corinth, and which I have not seen except in photographs, is reported in Ohnesorg's *Inselionische Marmordächer* via one illustration and a brief description.[148]

The datable features of the architecture suggest that the Great Temple at Corinth was constructed in the last quarter of the 6th century B.C. The restored profile of the capital is similar to that of the capital of the 6th-century Temple of Apollo at Delphi, with which it is compared in Figure 7.34. The echinus rises at about a 45° angle to a full curve at the top. The curve continues directly to the underside of the abacus without the intervening notch characteristic of earlier capitals. The annulets have the form typical of Late Archaic and Early Classical capitals. That the building belongs still to the 6th rather than the 5th century B.C. is suggested by the fact that the guttae of the epistyle are carved free of the face of the epistyle, as in the Temple of Apollo at Corinth. That the building should, on the other hand, date no earlier than the late 6th century is indicated by the details of the geison, specifically the curved profile of the drip mold-

147. This eaves tile and the pan tile mentioned below were omitted in the final publication of the Asklepieion, in *Corinth* XIV. The preliminary excavation report (de Waele 1935a, p. 359) only refers to "some beautiful marble roof-tiles" discovered in a manhole of the water system of the Lerna fountain.

148. Ohnesorg (*1993, p. 48, pl. 88:5) reports that the scale of the head is comparable to the lion-head spout of the Peisistratid Temple on the Athenian Acropolis and that Mertens-Horn dates the head to between 510 and 460 B.C.

ing[149] and the combination of narrow viae and wide mutules with three rows of six guttae, which becomes standard for Doric geisa from the last quarter of the 6th century B.C. onward (Fig. 7.29). A late 6th century B.C. date is also indicated by the appearance of lewis holes in the epistyle (Fig. 7.15), which are not attested before ca. 540–530.

The identity of the Great Temple remains uncertain. In the northern part of Corinth where the surviving elements have been found, two candidates are suggested by the testimony of Pausanias. One is the Temple of Zeus Kapetolios/Koryphaios, located ὑπὲρ τὸ θέατρον—by which Pausanias may mean "beyond the theater," i.e., north of the Theater in the direction of the Gymnasium.[150] The second is a burnt temple, located just beyond the city along the road to Sikyon and dedicated either to Apollo or to Olympian Zeus.[151] Unfortunately the remains of our colossal temple cannot easily be associated with either of these temples. The stories associated with the burnt temple suggest that it was destroyed many centuries before Pausanias's time, whereas elements of the Great Temple, such as the large epistyle block, bear traces of thick Roman stucco, indicating that this temple, like the Temple of Apollo, was repaired in the Roman period.[152]

A temple restored in Roman times might seem more likely to be Pausanias's Temple of Zeus, which was apparently still intact when he saw it in the 2nd century A.C. Yet, if it is true, as Wiseman claims, that portions of the large temple had been dismantled and reused before Pausanias' arrival in Corinth,[153] it would be difficult, though not altogether impossible, to associate the building with this Temple of Zeus.[154]

Temple of Hera Akraia at Perachora

The remains of this Doric temple, located near the harbor of Perachora, were excavated by Payne in 1930 and 1931 (Fig. 7.35). The surviving portions of the foundations and lower walls indicate that this was an unusually long apteral temple, 9.26–9.35 m wide and just under 30 m long, oriented to the east (Fig. 7.36).[155]

At the west end of the building there was no opisthodomos, but a rear chamber instead, which could be entered only from the cella.[156] Within this rear chamber, on its central axis, were found the remains (now removed) of a rectangular base, which presumably held the cult statue,[157] and a cylindrical block that might have held an offering table in front of the statue.[158] At the northeast corner of the rear chamber there is evidence for a small closetlike room, which may or may not be original to the building.[159] Surviving portions of the interior stylobates and their foundations indicate that within both the rear chamber and the cella the roof was supported by two parallel colonnades, presumably of the Doric order, raised upon an elevated stylobate. As a result of the almost total destruction of the east end of the building, the design of the facade remains uncertain. It is generally assumed, and surely rightly, that the front of a well-built temple of this size would have had a proper pronaos, but the depth of such a porch and the design of its columnar facade, whether tetrastyle-prostyle or distyle-in-antis, remain open to question.[160]

As has been noted by Payne and others, it appears that the unusually long apteral plan of the temple is, at least in part, a result of the limited area of the building site.[161] It appears that the builders wanted a large, impressive temple, but because of the narrow space between the cliff edge and sea, found it impossible to

149. See Shoe *1936, p. 158.

150. Paus. 2.4.5. For discussion, see Dinsmoor 1949, p. 115, note 22.

151. Pausanias (2.5.5) mentions two traditions concerning this temple: one, that it was dedicated to Apollo and was burned down by Pyrrhos, the son of Achilleus, and two, that it was dedicated to Olympian Zeus and destroyed unaccountably by fire. Pausanias (3.9.2) may refer to the same temple when he records that the Olympieion at Corinth was destroyed in the year that Agesilaos set out for Asia (396 B.C.). For discussion of these temples, see Wiseman 1978, p. 84.

152. A number of scholars have suggested a link between our large temple and the Temple of Olympian Zeus mentioned by Pausanias, but none has noticed and accounted for the problematic detail of the Roman stucco on the extant pieces; Wiseman 1978, p. 84; Salmon 1984, pp. 202, 228; Musti and Torelli 1986, p. 235.

153. Wiseman 1967a, pp. 29, 31.

154. Freeman (*Corinth* I, ii, pp. 232–236) argued that the Temple of Zeus Koryphaios should be identified with the Roman podium temple known as Temple E, but her identification has been rejected by Roux (1958, pp. 126–127), Wiseman (1979, p. 522), and Williams (1987, pp. 29, 36, note 7; 1989), who return to the earlier association of Temple E with Octavia. Walbank (1989, pp. 361–394) agrees with Freeman in believing that Temple E was the Capitolium of Corinth, but she thinks that it is distinct from Pausanias's Temple of Zeus Kapetolios/Koryphaios.

155. Whereas the width is directly measurable at the west end of the building, the length is not, since nothing of the east stylobate remains in situ; see *Perachora* *I, p. 80; Menadier *1985, p. 6.

156. The details of this rear chamber have been carefully reexamined in recent years by Menadier (*1995, pp. 24–36).

157. The current location of the base is unknown; see Menadier *1995, p. 25. Only the foundations of the base remain in situ.

158. For the identification of this cylindrical base, see Rupp *1974, pp. 326–327; Menadier *1995, pp. 32–33.

159. See Menadier *1995, pp. 33–36.

160. Neither direct evidence from the building remains nor comparative evidence from other temples is adequate to confirm the correct restoration of the facade colonnade. Payne (*Perachora* *I, p. 80) and Coulton (*1976, fig. 99) assume that the facade was distyle-in-antis. Menadier (*1995, pp. 18–19) thinks that a temple of the size of the one at Perachora should have had columns across the entire facade, as on a peripteral temple.

161. *Perachora* *I, p. 78.

FIGURE 7.35. *Temple of Hera Akraia at Perachora, view from the west*

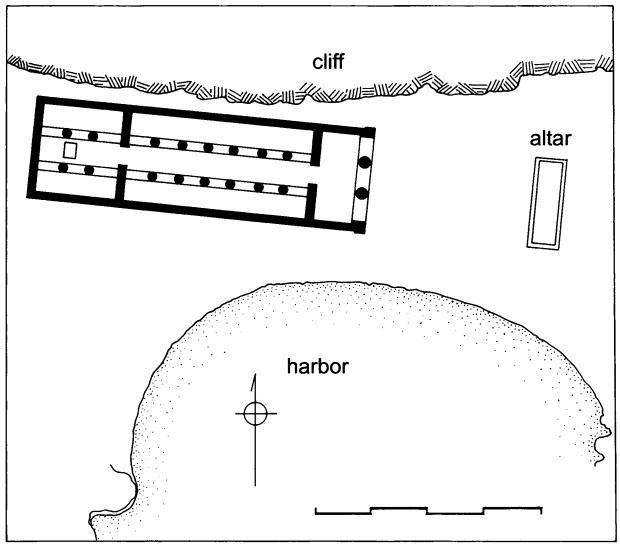

FIGURE 7.36. *Restored plan of the temple and altar of Hera Akraia at Perachora*

include the peristyle that one might expect for a temple of this scale. That the building lacks an opisthodomos might also be a response to the topography of the sanctuary, since the area west of the temple was constricted by the rising level of the bedrock. The inclusion of a rear chamber, however, must be explained by some other factor. Payne thought that this chamber and other oddities of the interior design might be explained by the fact that the temple was the seat of an oracle,[162] but this is by no means certain. Although the evidence of Strabo (8.6.22) suggests that there was once an oracle at Perachora, there is nothing to link it specifically with the temple.[163]

Surviving elements of the superstructure, mostly from the west entablature and pediment, confirm that the building was designed in the Doric order and had low pediments at both ends of the roof. Surviving elements of the roof show that the revetment, from the eaves to the ridge of the roof, consisted entirely of marble tiles. This use of expensive foreign marble for the roof confirms the fact that this temple, despite its unpretentious apteral plan, was intended to make an extraordinary impression.

There is, regrettably, no stratigraphic evidence for the building's date of construction. Although Payne recorded a number of datable small finds from the area of the temple, he did not specify their contexts clearly enough to elucidate the relationship of their dates to the date of the temple.[164] Largely on the basis of stylistic analysis, Payne suggested that the temple was built in the third quarter of the 6th century B.C.[165] More recently Menadier has proposed, again from stylistic criteria, a slightly later date at the beginning of the fourth quarter of the 6th century.[166] It seems to me that a still later 6th century date is suggested by certain features, such as the curved form of the drip of the horizontal geison and the curved profile of the soffit of the raking geison, but the design of the marble antefix, which resembles that of terracotta antefixes of the third quarter of the 6th century, would seem to caution against lowering the date very far beyond 525.[167]

From the architectural remains at Perachora it appears that this late-6th-century Temple of Hera had one or two Archaic predecessors. From terracotta roof tiles of the so-called Protocorinthian type, it seems

162. *Perachora* *I, p. 80.

163. A convenient summary of the various interpretations of the oracle at Perachora is provided by Menadier (*1995, pp. 41–43, 183–187). She herself suggests that the small room at the northeast corner of the rear chamber was an adyton for the oracle.

164. *Perachora* *I, p. 89.

165. *Perachora* *I, pp. 88–89.

166. Menadier *1995, p. 66.

167. Winter (*1993, p. 71) has noted that these antefixes are similar to a terracotta antefix from Corinth (FA-15) that she dates to 540 B.C. Whether the marble antefixes from Perachora are exactly contemporary with the terracotta example is not altogether clear. Although they were obviously modeled on a local Corinthian terracotta type, they were made not by local coroplasts but by marble workers, perhaps imported with the marble from the Cyclades. These foreign craftsmen might not have been familiar with the most up-to-date antefix type in production in Corinth's tile factories but rather chose an earlier type as their model, perhaps because it appeared on a conspicuous building at Corinth.

quite likely that one predecessor was constructed in the second half of the 7th century B.C.[168] To this, or perhaps to a second predecessor of the early 6th century B.C., may be assigned some fragmentary foundations located near the east end of the Late Archaic temple[169] as well as numerous blocks with U-shaped rope holes reused within the walls and foundations of the Late Archaic temple.[170] Other pieces that might belong to an early-6th-century predecessor are a fluted column shaft fragment that was reused in the west wall of the late-6th-century temple,[171] a small fragment of a hawksbeak crown molding that might belong to an anta capital,[172] and terracotta eaves tiles, datable to about 570–560 B.C.[173] The latter, however, were found mostly in the area of the so-called Hearth Building (below, pp. 128–130), and so are perhaps more likely to belong to that building instead. It is also just possible that a fragmentary tympanum block, which does not fit well with either the late-6th-century temple or the Hellenistic stoa by the harbor, might belong to an earlier temple.[174]

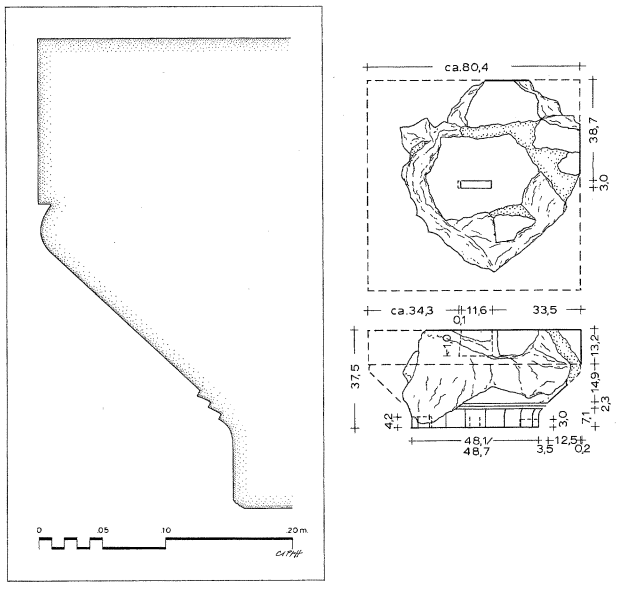

FIGURE 7.37. *Doric column capital from east of the Theater*

Doric Temple(?) near the Theater

Excavations in 1981 in the area east of the Theater at Corinth brought to light a few Doric elements that may derive from a small temple (Figs. 7.7, 7.37–7.39).[175] The elements were all found in close proximity to one another in Roman contexts: a triglyph and a small fragment of a Doric column capital were found in the uppermost fill of well 1981-6,[176] and a

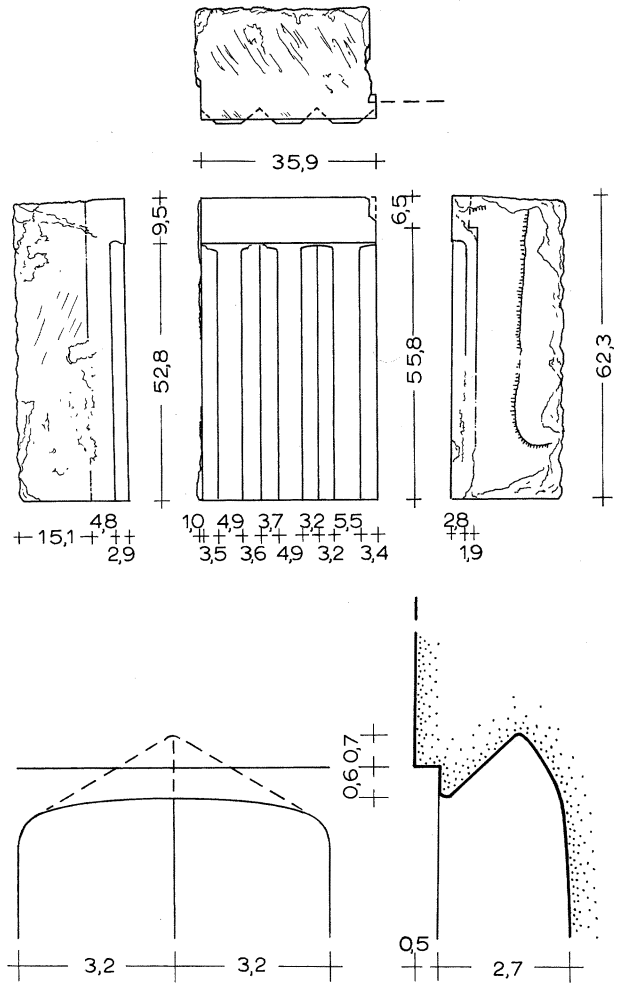

FIGURE 7.38. *Triglyph block from east of the Theater*

168. For these early tiles (FC-102 and FC-103 in the Corinth inventory), see Cooper *1989, p. 28; Heiden 1987, p. 21; Winter *1993, p. 17; Menadier *1995, pp. 72–73.

169. The fragmentary foundations, marked *x* and *y* in *Perachora* *I, pl. 138, were thought by Payne (*Perachora* *I, p. 83) to belong to a 7th-century predecessor. He is followed by Salmon (*1972, p. 163) and Menadier (*1995, p. 72).

170. That these blocks were reused from a predecessor is suggested by their apparently random positions; see Menadier *1995, p. 18.

171. *Perachora* *I, pp. 82–83, fig. 14.

172. See *Perachora* *I, pp. 91–92, fig. 16, pl. A; Schwandner *1985, p. 129; Menadier *1995, pp. 36, 62–63.

173. For the tiles, see *Perachora* *I, pp. 113–115, fig. 18, pl. B (bottom); Winter *1993, p. 69; Menadier *1995, pp. 119–120, fig. 27.

174. For the tympanum block, see Coulton *1967.

175. For the preliminary excavation report, see Williams and Zervos 1982, p. 129.

176. This well was abandoned in the middle of the 8th century B.C., as indicated by the pottery in the lower fill, but the upper fill dates to the Roman period; see Pfaff 1988, pp. 21–26. For the triglyph, A-1981-2, and capital fragment, A-1981-3, see Williams and Zervos 1982, p. 131, nos. 51, 53. Together with these elements was found a wall crown block with hawksbeak and projecting tainia, which seems to be contemporary with the other elements, but which, because of the rough treatment of its upper surface and the deep projection of its tainia, is difficult to associate with the other elements in a conventional roofed structure. For this wall crown, see Williams and Zervos 1982, p. 131, no. 52 (A-1981-1).

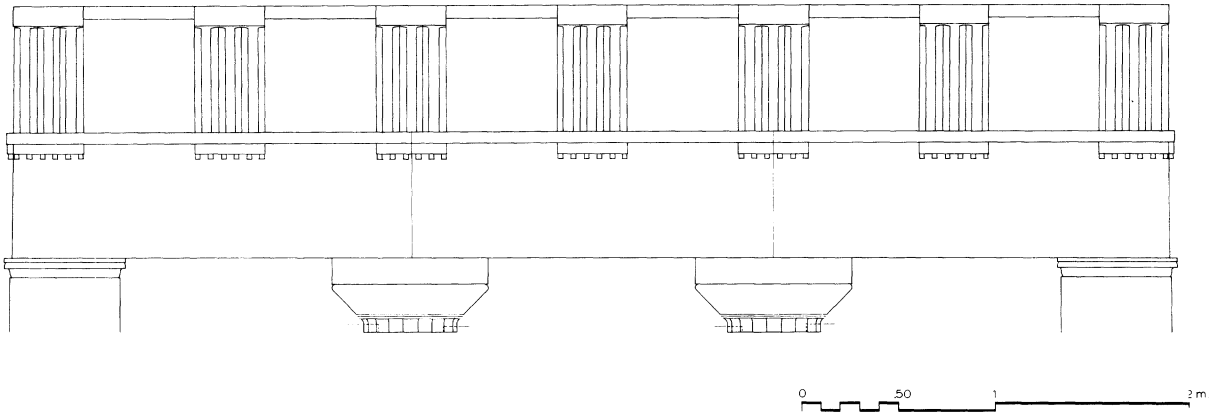

FIGURE 7.40. *Hypothetical restoration of the facade entablature of a Doric temple(?) based on the elements from east of the Theater*

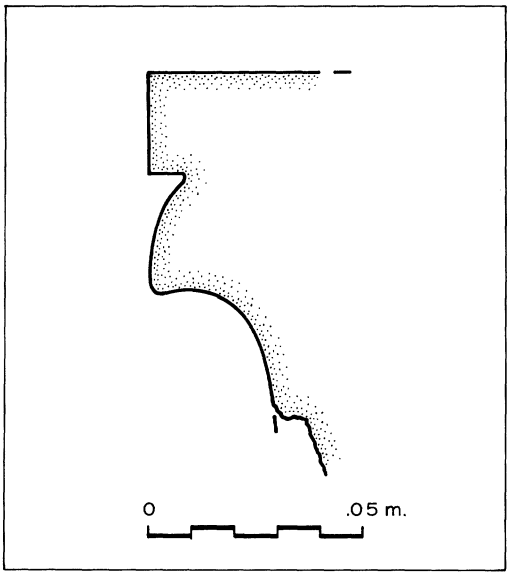

FIGURE 7.39. *Fragment of hawksbeak crown molding from east of the Theater*

fragmentary Doric capital was found in the lining wall of the adjacent manhole 1981-2.[177] Three other elements—a small epistyle fragment, preserving part of its tainia and regula (Fig 7.7), a fragment of a hawksbeak molding, probably from an anta crown, and a fragment of a terracotta raking sima (Fig. 7.19)[178]—were found in a robbed foundation trench. All these elements seem generally to be Archaic, and the column capitals and sima point more specifically to ca. 500–480 B.C.[179]

Because these elements were all found in one area and seem to correspond to one another in date and scale, it seems likely that they belong together, as Williams tentatively suggested. If that is so, the elements must belong to a small Doric building with columns and a pedimented roof. Cuttings in the side of the necking of the fragmentary column capital indicate that there were grills between the columns. The simplest, though not the only possible, restoration of the building from which our elements derive would be as a small distyle-in-antis structure, as suggested in the restored drawing in Figure 7.40. Grills on such a structure would close the facade intercolumniations and control access to the interior. The height and width of the triglyph and the diameter of the necking and restored width of the abacus of the capital indicate that the scale of the order was approximately 90 to 100 percent of that of the earlier Megarian Treasury at Olympia and 87–98 percent of that of the later Sikyonian Treasury at Olympia. From the proportions of these two buildings, the height of the columns of the Corinth building can be estimated at between ca. 3.15 and 3.53 m, and their interaxial spacing between ca. 1.80 and 2.02 m. A hypothetical distyle-in-antis facade would have had a total width (at frieze level) of between ca. 5.76 and 6.42 m.

From the findspots of the extant elements near the later Theater, it is tempting to imagine that the building to which the elements belong was an early temple of Dionysos, comparable to the 6th-century Temple of Dionysos near the ancient theater of Athens,[180] but since the Theater at Corinth is not known to have had an Archaic phase,[181] and since no other evidence of a cult of Dionysos in the area of the Theater in the Archaic period has yet been discovered, the identification of our small Doric building as a temple of Dionysos cannot now be verified.

177. For the capital, see Williams and Zervos 1982, p. 131, no. 54 (A-1981-7).

178. For the epistyle and molding fragments, see Williams and Zervos 1982, p. 132, nos. 55, 56 (A-1981-4, A-1981-6).

179. I agree here with the conclusions of Williams and Zervos (1982, p. 132).

180. For the 6th-century Temple of Dionysos at Athens, see Dörpfeld and Reische *1896, pp. 13–19; Fiechter *1935, pp. 11–12.

181. The earliest attested phase of the Theater is dated to the end of the 5th or first half of the 4th century B.C.; see *Corinth* II, p. 131 and Williams and Zervos 1989, pp. 25–28. It should be noted that a simple theater, consisting of little more than the natural hillslope, might have occupied the lower part of the later cavea and orchestra without leaving any substantial remains.

Other Sacred Structures

Apsidal Building near the Sacred Spring

Located some 9 m north of the fountain house of the Sacred Spring are the remains of an unusual apsidal structure that had apparently some connection with the cult centered at the water source (Fig. 7.41). First revealed in excavations in 1902, the remains in situ consist of a single foundation course set on rock-cut beddings and a small portion of the socle for the rear wall.[182] These remains suffice to show that the building was a small single-room structure, approximately 8.50 m long and 5.60 m wide, with apsidal rear wall at the west and rectangular facade at the east.

Beneath the floor of the building, a rock-cut tunnel and a stone drain run eastward from the center of the building to the cliff edge that separates the upper area occupied by the Apsidal Building from the lower area of the Lechaion Road valley to the east. Both tunnel and drain are generally thought to have been connected with sacred rituals, but the exact nature of those rituals is debated.[183] If these rituals were essential to the building's function, it would seem reasonable to conclude that drain and tunnel were both part of the original design of the building, although further proof is lacking. Another noteworthy but problematic feature of the building is a limestone base, centered within the interior, which has been identified as the base of either a round altar or a perirrhanterion.[184] Although this feature was assumed by Hill to be an original feature of the structure, more recently Williams has argued convincingly that it represents a later addition.[185]

The function of this peculiar building with its unusual tunnel, drain, and base remains in doubt. Whereas Hill and others following him identified the structure as a temple or heroon,[186] Williams has suggested that it served as a place for "sacred purification or baptismal rites" associated with the cult of the Sacred Spring.[187]

For the restoration of the superstructure the only evidence is one Doric corner epistyle block, found

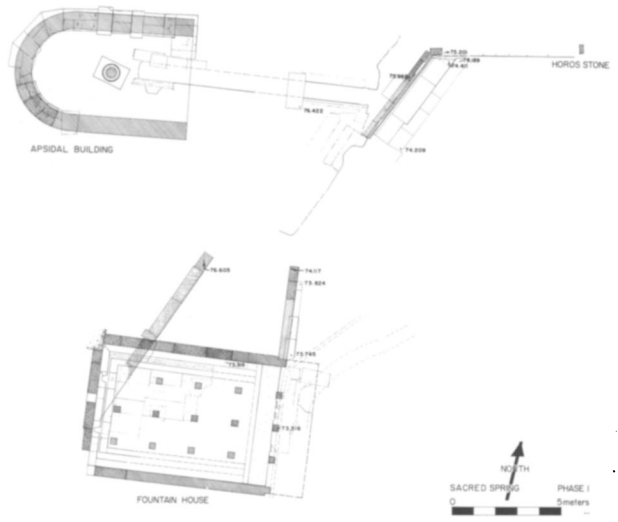

FIGURE 7.41. *Plan of the Apsidal Building and fountain house of the Sacred Spring.* After Williams 1969a, fig. 1

reused in a Roman foundation about 19 m southeast of the Apsidal Building (Fig. 7.14). The association of this block with the Apsidal Building, although not absolutely assured, is supported both by the block's findspot near the building and by its length, which fits very well the width of the building's facade, as indicated by the foundations.[188] If the block's association with the Apsidal Building is correct, it would indicate that this structure was designed with a Doric entablature above a tristyle-in-antis facade.

Although Williams has tentatively associated two fragmentary Doric column capitals with this facade[189] and has illustrated three columns between antae in his restorations,[190] the evidence of the bottom of the epistyle block, not previously examined, shows that rectangular piers, rather than columns, were used on the facade. At the left end of the bottom of the block, the position of the element that supported the epistyle is clearly marked by a 0.165 m–wide area that is smoother (less weathered) than the rest of the underside (Fig. 7.42). Assuming that the supporting mem-

182. The remains in situ are described by Hill in *Corinth* I, vi, pp. 129–134.

183. Hill has suggested that the tunnel was used as a place from which to give oracles to individuals within the building: *Corinth* I, vi, p. 140; *Guide*[1], p. 34; Fowler 1922, pp. 217–218. Bonner has theorized that the tunnel was used to provide secret access to the adjacent drain in order to carry out a fraudulent Dionysiac miracle of turning water into wine: Bonner 1929, pp. 368–375; *Guide*[2], p. 61. Elderkin, in turn, thinks that it might have been used in connection with both a wine miracle and an oracle: Elderkin 1941, pp. 125–132. Williams (1978c, pp. 104, 132–133) suggests that the drain was used to carry away water or some other liquid used for lustrations or libations within the Apsidal Building, but he does not speculate on the function of the tunnel.

184. For its identification as an altar base, see *Corinth* I, vi, p. 134. For its identification as a perirrhanterion base, see Williams 1978c, pp. 102–105.

185. *Corinth* I, vi, p. 134; Williams 1978c, p. 103. I might add here that Fowler (1922, p. 216) and Carpenter (*Guide*[1], p. 29) believed that the base was an earlier feature of the site that preceded the construction of the Apsidal Building.

186. *Corinth* I, vi, pp. 129, 134; *Guide*[1], pp. 29–34; Fowler 1922, pp. 217–218; Bonner 1929, pp. 368–375; Broneer 1942, pp. 150–153.

187. Williams 1978c, pp. 132–134.

188. According to Hill (*Corinth* I, vi, p. 125), the width of the building is 5.60 m. According to Williams (1969a, p. 41), the restored length of the facade entablature indicated by the epistyle block is 5.58 m.

189. Williams 1984b, p. 74, no. 9 (A-70-1), fig. 1.

190. See, for example, Williams 1969a, fig. 6, and Langridge-Noti 1996, fig. 6. For a time, however, Williams thought that the front of the building might have had a door wall rather than a colonnade; see Williams 1978c, p. 109.

FIGURE 7.42. *Epistyle block associated with the Apsidal Building: bottom*

ber was originally centered below the epistyle joint, its total width must have been 0.33 m (2 × 0.165 m). Since this dimension is far too narrow for the abacus of a column capital of appropriate scale for the epistyle,[191] there seems to be no alternative but to restore rectangular piers to the facade of the building. Their width (below a hypothetical crown molding) was perhaps equal to the width (0.31 m) of the triglyphs of the frieze with which the piers were vertically aligned. The depth of the piers is likely to have been approximately equal to that of the epistyle, ca. 0.74 m.

The resulting restoration of the facade with three rectangular piers in-antis may seem peculiar, but it is, in fact, paralleled in the nearby fountain house of the Sacred Spring (Fig. 7.41), with which the Apsidal Building was apparently closely connected.[192] In both structures the substitution of piers for columns is likely to have resulted from practical considerations. Since the scale of both buildings was very small, the use of relatively narrow piers in place of Doric columns would have provided much needed additional space between the supports.[193]

The date of the Apsidal Building is no more clear than its function.[194] From the early excavations that uncovered the building and removed the surrounding strata to bedrock there is no record of the context pottery. From the building itself, possible evidence for dating is provided by the swallow-tail clamps in the wall socle, which are suggestive (but only suggestive) of an Archaic date,[195] and the U-shaped rope holes in the epistyle block, which indicate a date certainly no later than the early 5th century B.C. and probably no later than the 6th. The building's "uncanonical" frieze proportions, as indicated by the positions of the regulae of the epistyle, might also support an Archaic date, but since these proportions may have been affected by the unusual design of the facade with piers, they cannot be considered a reliable indicator of the date of the building.

The Oikos in the Sanctuary of Demeter and Kore

On the central terrace of the Sanctuary of Demeter and Kore on the north slope of Acrocorinth, excavations directed by Stroud in the late 1960s brought to light the remains of a small rectangular structure, which has been given the neutral designation "Oikos" (Fig. 7.43).[196] From what survives in situ (rock-cut beddings for the foundations and a few ashlar blocks of the lowest foundation courses), it is clear that the structure was rectangular in plan, with overall dimensions of ca. 7.57 m (east–west) by ca. 7.75 m (north–south), and that it had no internal divisions. There is no direct evidence for the location of the entrance, but from topographical considerations, it is likely to have been in the east, long, wall.

Because of the central location of the structure within the sanctuary and because of its careful construction, the Oikos is presumed to have been an important feature of the Archaic sanctuary, but its exact function and restoration are open to question. Uncertainty about the restoration results from the fact that nothing of the superstructure can be positively identified. A few Archaic wall blocks reused in the Roman temples on the Upper Terrace of the site may belong to the Oikos,[197] as might one or two 6th-cen-

191. Although the use of relieving margins along the lateral edges of the top of the abacus of a capital might reduce the width of the area of the bottom of an epistyle block protected by the capital, it would not reduce that width to a mere 0.33 m.

192. For the fountain house, see below, pp. 132–133.

193. The space between 0.31 m–wide piers on the Apsidal Building would be ca. 1.32 – 0.31 = ca. 1.01 m. On a columnar facade of the same scale, the space between columns (at the bottom of the shafts) would be only about 0.77 m, if the proportions were like those of the Temple of Apollo.

194. In *Corinth* I, vi, p. 137, Hill says the following with regard to the date of the building: "Every part of its construction points to a good Greek period, and one would hardly conjecture a date later than the 5th century." In Williams 1969a, pp. 38–43, 55, the Apsidal Building and the fountain house are included in the first phase of the Sacred Spring complex, which is here said to begin in the first half of the 5th century. In Williams 1970a, pp. 21, 30, evidence is presented in support of a pre–5th century foundation date for the sanctuary, but without further argument the 5th century date of the fountain house and Apsidal Building is maintained. In Williams 1978c, pp. 105–110, the suggestion is made that the Apsidal Building is somewhat later than the fountain house, which, from the style of its original lion-head spout, might date to the late 6th century. Of the evidence that Williams presents here in support of a date for the Apsidal Building in the second quarter of the 5th century, there is nothing that might not rather be 6th century, with the possible exception of an inscribed horos stone, whose relevance for the chronology of the building is, as Williams acknowledges, not assured.

195. See Weickert *1929, p. 126.

196. The remains of this building are published in detail in *Corinth* XVIII, iii, pp. 64–73. I thank Ronald S. Stroud for having allowed me to consult the manuscript of the volume in advance of its publication.

197. These blocks, which remain in situ in the socle of the walls of the eastern and central temple, have U-shaped rope holes to confirm their Archaic date. Their width, 0.49–0.52 m, would seem (despite the reservations expressed in *Corinth* XVIII, iii, p. 338, note 4) to be appropriate for wall blocks to be set upon the 0.57 m–wide foundations of the Oikos.

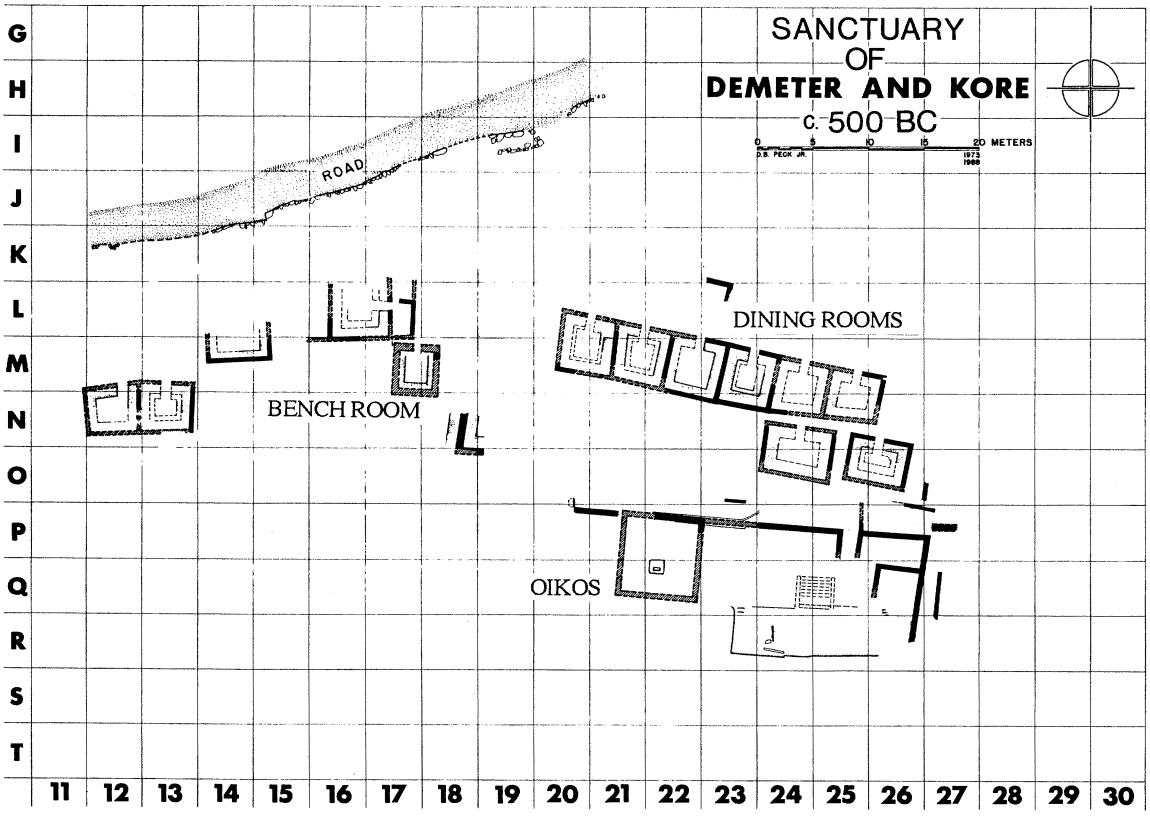

FIGURE 7.43. *Plan of the Sanctuary of Demeter and Kore, ca. 500* B.C. After Bookidis 1990, pl. 7

tury B.C. antefixes from the site,[198] but the association of these elements cannot be confirmed. The design of the Oikos would seem to argue against its identification as a normal temple. The structure's wide, almost square, plan seems rather more appropriate for a sacred hall, or *telesterion,* as Stroud has noted.[199] Though little else is certain about the building, its date in the third quarter of the 6th century B.C. is well established by pottery from the north foundation trench.

Early Shrine of Apollo/Asklepios in the Asklepieion

Circumscribed by the foundation trenches for the Hellenistic temple in the Asklepieion at Corinth are the shallow beddings for a small rectangular structure, which is likely to represent a predecessor of the later temple (Fig. 7.44). The date of the earlier structure is not firmly established. Votives (including a krater inscribed with the name of Apollo), which were dumped into a broad, shallow cutting to the east of temple, indicate that the cult was active from the early 6th century B.C. onward, but no stratigraphic evidence directly related to the building's construction and use has been recorded.[200] Fragments of a combined raking geison and sima of Late Archaic date are said to have been found in the area, but their association with our building cannot be firmly established.[201]

Since nothing certain survives of the building apart from the rock-cut beddings on which it was erected, these provide our only clue to the nature of the structure. As revealed in de Waele's excavations in the 1930s, the beddings indicate that the building's external dimensions were approximately 5.0 by 7.5 m and that its orientation was almost due east. The beddings also show that at the east end of the building there was a broad entranceway (3.2 m wide) between antae. There is no bedding for a door sill or a stylobate between the antae, nor are there beddings extending eastward beyond the antae to support a prostyle porch. On the interior of the structure there are several interesting cuttings and beddings, which are identified by letters on the plan in Figure 7.44: *a:* four large post holes symmetrically arranged in a rectangular configuration toward the west end; *b:* a long rectangular bedding located between and in front of

198. *Corinth* XVIII, iii, pp. 466–467, nos. 70, 71, pl. 62. One antefix, FA-546, seems related to Winter's Argive type III, variant 1 (ca. 550 B.C.) but is not exactly the same: Winter *1993, pp. 165–166, pl. 72. The other antefix, FA-452, belongs to Winter's Corinthian type V (ca. 520–510): Winter *1993, p. 77. On the basis of certain stylistic affinities with the light-on-dark antefixes of the Lesche of the Knidians at Delphi, Bookidis has suggested that the second antefix may date to the early 5th century B.C.; *Corinth* XVIII, iii, p. 467.

199. *Corinth* XVIII, iii, pp. 72–73.

200. For the early votives found east of the temple, see *Corinth* XIV, pp. 15–18.

201. See note 60 above.

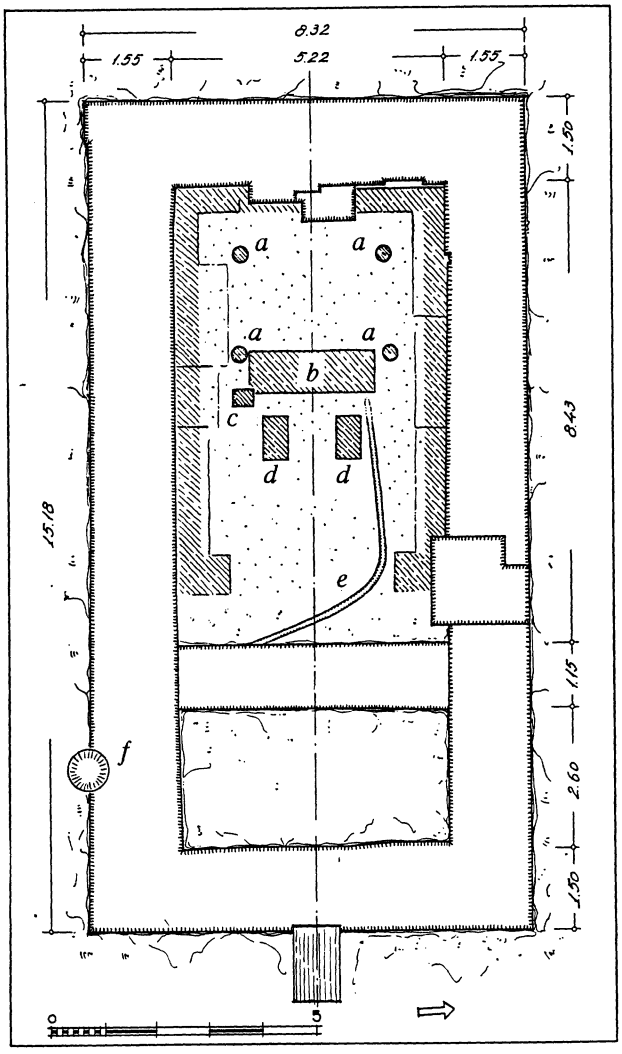

FIGURE 7.44. *Actual-state plan of the Archaic shrine in the Asklepieion.* After *Corinth* XIV, fig. 3

the two forward post holes; *c:* a small rectangular bedding at the southeast corner of *b; d:* two symmetrically arranged rectangular beddings positioned directly in front of *b; e:* a shallow drain channel that originates near the northeast corner of *b* and originally debouched into a rock-cut settling basin *(f)*.

From this evidence two rather different reconstructions of the building have been advanced. In the preliminary excavation report, de Waele concluded that the structure was a naïskos with two wooden columns in-antis. Within it he suggested restoring a table for votives on the pair of beddings *(d)*, an altar or table for libations on the larger bedding *(b)*, and two cult statues under a baldachino secured in the four post holes *(a)*. In the final publication of the Asklepieion, in *Corinth* XIV, Carl Roebuck accepted, with minor changes, de Waele's restoration of the interior arrangements, but rejected the notion that the structure was a naïskos. Because of its wide entrance and because of the "elaborate arrangement of baldachino, altar, sacrificial table and libation drain," he concluded that the structure represents "an open air shrine which was surrounded for the sake of privacy by a wall."

There are obvious problems with the interpretations and restorations presented by both scholars that need reconsideration. With regard to de Waele's restoration, there is nothing to support the insertion of columns between the antae of the facade; even for wooden columns we should expect some indications, such as beddings for a stylobate or individual base slabs beneath the columns. With regard to Roebuck's restoration, the most obvious difficulty is the fact that at Corinth open-air shrines typically have a square (or, at least, nearly square) plan rather than an oblong plan like that of the structure in the Asklepieion. Moreover, the wide entrance of the latter, which Roebuck considered inappropriate for a naïskos, is at odds with the design of open-air shrines at Corinth. At least in the case of the Heroon of the Crossroads (see below, p. 128), where evidence for the entranceway survives, the opening is narrow and fitted with a single valve door. In any case, the fact that there was a large opening at the east side of the structure in the Asklepieion surely indicates that the primary purpose of the walls of that building was not to ensure privacy or restrict access.

In the light of the fact that the structure in the Asklepieion has an oblong plan, such as would facilitate roofing, and the fact that the structure was replaced by a conventional temple, I am inclined to return to de Waele's restoration of the building as a small temple, though without the columns in-antis that he included. It is just possible that this small temple had a prostyle facade, along the line of the cross-wall foundation of the later temple, where no trace of it could survive, but such a design is problematic insofar as it would put the southern corner column of the porch directly above the drain that emerges from the building's interior. Less problematic, though less impressive, is the restoration of the building with no columns, but simply three walls forming the cella.

With regard to interpretations of the interior arrangements of the structure presented by both de Waele and Roebuck, there are further difficulties to consider. The first is the fact that there is no bedding within the area defined by the four post holes at the rear of the structure. If this is where the cult statue stood, as both de Waele and Roebuck believed, why is there no bedding for its base? This question is made all the more difficult by the fact that other features, such as offering tables, which are unlikely to have been any more substantial than the cult statue base, have clearly discernible beddings in the natural rock. Another problem concerns the close spacing between the beddings for the table supports *(d)* and the long bedding behind them *(b)*. If the latter bedding did, in fact, support an altar or some other kind of offering table, the small space (ca. 0.40 m) between it and the

table in front of it would make the rear altar/table unnecessarily inaccessible. As a solution to these problems, I would suggest that the cult statue was not set within the area of the four posts, where there are no indications of beddings for a base, but rather that it was set on a base positioned above the rectangular bedding *(b)*. An offering table might then be set upon the two beddings *(d)* directly in front of the cult statue. As for the four post holes at the rear of the cella, two quite different explanations come to mind. The first is that they have nothing to do with the small temple, but belong to an earlier phase of the sanctuary when only a wooden baldachino protected the statue of the god. The second is that they pertain to the interior arrangements of the temple, but held posts for the display of votives and/or garlands behind the statue.

One final problem concerns the ground level of the interior of the temple and the drain channel that runs from the center of the building to a settling basin southeast of the temple. Noting that the drain channel has no rabbets along its edges to support cover slabs, Roebuck concluded that the drain must have remained open and "that the floor of the shrine was the natural rock surface, or consisted of a thin layer of earth."[202] Against this conclusion is the obvious awkwardness of having an open channel cross in front of the building in such a way as to trip up anyone who might approach.

A less obvious but more objective proof that the ground level was originally higher and that the drain was buried is provided by the beddings for the walls of the building. As is correctly indicated on the actual-state plan (Fig. 7.44), these beddings were customized to fit the sizes of the individual blocks that were positioned in them. Especially along the south side of the building the width of the beddings can be seen to vary considerably to accommodate blocks of various widths. That such variation in the widths of the blocks was tolerated must indicate that the blocks of this lowest course belonged to a foundation or socle course that was intended to be buried. And in that case the floor level within and in front of the temple where the drain is located must have been the equivalent of at least one course above the level of the bedrock in the area. Despite the lack of rabbets for cover slabs, therefore, the drain must have been concealed below the floor level of the temple and the surrounding area.[203]

The Underground Shrine

The remains of this small, one-room shrine were discovered in 1937 some 15 m southwest of the Bema of the later Forum of Corinth.[204] The interior of the structure, approximately 2.8 × 3.0 m, is cut down about a meter into the bedrock and is entered on its west front by a ramp descending from the south. The floor of the shrine consists of a compacted layer of yellow clay covered with a layer of cement. Around the sides and back of the room there is a bedrock ledge dressed to support the walls of the structure. At the center of the floor is a deep rectangular foundation pit; four other such pits are aligned across the westward-facing facade. Of the latter, the two southernmost still contain foundation blocks in situ; the second from the north also contains the stump of a 18-fluted column whose bottom extends below the floor level of the shrine.

From this evidence two quite different restorations have been proposed. Morgan concluded that this was an altar enclosure, surrounded by walls but open to the sky.[205] In a cutting at the center of the back of the structure he restored a niche (perhaps for a cult statue); above the central foundation pit he restored an altar, and above the four foundation pits at the facade he restored four columns (which presumably would have acted as a kind of screen for the open area behind). That the single preserved column extends down below floor level was interpreted by Morgan as having symbolic (chthonic?) significance. Williams has more recently restored the structure as a roofed building with a single column in-antis on the facade.[206] He argues convincingly that the deep foundation pit at the center of the building is more appropriate for a roof support than for an altar. He does not attempt to explain the unusual submerged position of the column of the facade, which, if it is original, is very strange indeed.

However the structure is restored, there is general agreement that it served as a shrine, probably for a hero cult with some connection to the 8th-century B.C. cemetery in the area.[207] The construction of the shrine has been dated to the 6th century B.C. by Morgan, presumably on the basis of stratified finds, but since those finds were not published and cannot be identified, it is now impossible to verify the date.[208] Pottery from the filling of the shrine confirms that it went out of use in the second half of the 4th century B.C., probably at the time the South Stoa was constructed.[209]

202. *Corinth* XIV, p. 10.

203. It seems unlikely that the level would have been more than one course (perhaps 0.20–0.30 m) above the bedrock since this would imply exceptionally deep foundations for the supports of the offering table.

C. K Williams has suggested (pers. comm., 2002) that the drain channel might originally have held a terracotta pipe. If so, we would expect the pipe to be buried below ground level.

204. Since this shrine has been reburied, the description presented here is based entirely upon previous publications: Morgan 1937, pp. 545–546 (see esp. pl. XIII:2); Broneer 1942, p. 144; Williams and Fisher 1972, pp. 149–151; Williams 1978c, pp. 67–78.

205. Morgan 1937, pp. 545–546. Broneer (1942, pp. 143–144) followed Morgan in restoring the structure as an unroofed shrine, but, disregarding the evidence of the rock-cut ledge, he did not think there were walls.

206. Williams and Fisher 1972, p. 149; Williams 1978c, pp. 68–71.

207. Morgan 1937, p. 546; Broneer 1942, pp. 144–145; Williams 1978c, pp. 75–78.

208. Morgan 1937, p. 546; Williams 1978c, pp. 73–74.

209. Williams 1978c, p. 74; *Corinth* VII, iii, p. 221 (deposit 89).

Heroon of the Crossroads

Discovered in 1972 just northeast of the Bema of Corinth's later Forum, the Heroon of the Crossroads is a simple open temenos constructed over the area of a Protogeometric burial plot (see Fig. 15.3). Since this structure has been published in considerable detail by Williams,[210] only a brief summary is required here. The temenos, which is dated by associated pottery to the second or third quarter of the 6th century B.C., was apparently constructed to provide a more formal setting for a hero cult established a generation or two earlier at the site of a Protogeometric grave. The walls of the temenos, encompassing a rectangular area of approximately 3.8 m by 4.5 m, originally consisted of a socle of cut limestone blocks surmounted by a single row of orthostates, crowned with a beveled coping course. Although the original height of the wall cannot be determined, Williams has restored it to just above eye-level. Passage through the wall was provided by a doorway asymmetrically positioned in the east side of the temenos. With minor alterations, this temenos, simple as it is, continued to be used down to the time of Corinth's destruction in 146 B.C.

With regard to construction technique, this little temenos holds some considerable interest. As Williams has noted, the methods used for bonding the various elements of the structure are more reminiscent of carpentry than of normal masonry.[211] In place of clamps and dowels, a rather complex system of mortise and tenon joints is used for bonding purposes; the tops and bottoms of the orthostates are mortised into the socle and coping course, while interlocking mortises and tenons bond adjacent blocks within the socle and coping course. To judge by the long survival of the Heroon, this method of construction, though unusual, was successful for such a structure.

Stele-Shrine

Approximately contemporary with the Heroon of the Crossroads and similar to it in many respects is the stele-shrine at the west end of the later South Stoa, excavated by Williams in 1977 (Fig. 7.45).[212] Like the Heroon, it is a rectangular, open-air shrine, surrounded by a wall comprised of orthostates supported by a socle and crowned by a coping course. The overall dimensions of the temenos are, however, slightly smaller—3.25 × 3.0 m—and the construction, though similar with regard to the bonding of the orthostates into the socle, is rather more careless. In its existing state, the structure preserves no evidence for a doorway, but the existence of table supports in the western half of the temenos implies that the interior was accessible. None of the orthostates preserves its full height, but marks on the side of the South Stoa, where in a late phase the temenos wall abutted the exterior of the stoa, indicate that the wall had a full height of 1.30 m above the socle. Because of the many similarities between this temenos and the Heroon of the Crossroads, William's restoration of the height of the walls of the Heroon to above eye-level may need reconsideration.

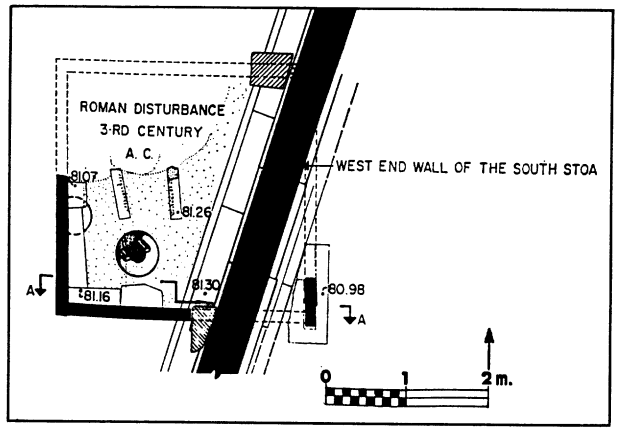

FIGURE 7.45. *Plan of the stele-shrine.* After Williams 1978c, fig. 1

Like the Heroon of the Crossroads, the stele-shrine seems to have served some kind of hero cult. In this case, however, there was no connection with a preexisting grave in the area but to an earlier house, whose remains have been only partially explored. That the stele-shrine is so named is explained by the fact that originally a stele of a distinctive Corinthian type was set up within it. The stele, removed from its original location, was found in a pit of Roman date that destroyed the northwest portion of the temenos. Like the Heroon of the Crossroads, the stele-shrine had a long life. Even after its southeast corner was removed by the construction of the adjacent South Stoa in the late 4th century B.C., it continued to be used for half a century or more.

The Hearth Building at Perachora

This building, excavated by Payne in 1932 on the upper terrace of Perachora, is a simple rectangular structure, with external dimensions of 5.6 by 9.5 m (Fig. 7.46).[213] The building is oriented north–south and seems to have had doorways on both the north and west sides. Centrally positioned in its undivided interior was a rectangular hearth surrounded by a stone

210. Williams and Fisher 1973, pp. 4–12; Williams, MacIntosh, and Fisher 1974, pp. 1–6; Williams 1981.

211. Williams and Fisher 1973, p. 9.

212. Williams 1978c, pp. 5–12, figs. 1–2, pls. 1–2; 1981, p. 411. A small portion of the shrine preserved within the west end of the South Stoa was uncovered in 1938; see *Corinth* I, iv, pp. 11–12, fig. 2. The date of the shrine's construction, as indicated by associated pottery, is the second quarter of the 6th century.

213. For a detailed description of the remains, see *Perachora* *I, pp. 110–113.

curb (subsequently removed). The construction, like the design and scale, is modest. The surviving portions of the lower wall are constructed of irregular stones of a hard local limestone set in mud mortar. It is usually assumed that the preserved stone wall served as a socle for a mudbrick superstructure, but this is by no means certain. The irregularity of the preserved top of the stone wall does not give the impression of a level surface appropriate to support mud bricks. It is of course possible that the top of the socle is not preserved, but it seems just as likely that the walls were built of masonry to their full height.

The building was originally dated by Payne to the 8th century B.C., in accordance with the date of the earliest pottery in the lowest stratum around the walls, and was identified by him as a temple of Hera.[214] Subsequently Tomlinson reidentified the building as a hall for ritual dining, i.e., a *hestiatorion*, on the basis of comparisons with dining halls in the Sanctuary of Herakles on Thasos and the Sanctuary of Zeus Aphesios at Megara, and this identification has been generally accepted.[215] While redefining the building's function Tomlinson also suggested lowering its date to the 7th century B.C.[216] More recently Menadier has argued for lowering the date still further, to the early 6th century. By interpreting the lowest stratum around the building not as debris accumulated during the early life of the building, but as a terrace fill brought in and deposited at the time of the construction of the building, she uses the latest rather than the earliest material in the fill to provide a *terminus post quem* for the construction. From Payne's statement that the stratum included some Early Corinthian pottery, she establishes the *terminus post quem* at ca. 590 B.C. Though Menadier's reassessment of the date of the building is insightful, the lack of clarity in the original recording of the stratigraphy around the building and the inaccessibility of the relevant context pottery leave the issue of chronology in doubt.

If Menadier's early 6th century date is accepted, the central hearth of the building, which makes use of reused dedicatory bases dating to the 7th or early 6th century, might be assigned to the original construction of the building. Fragments of terracotta roof revetment found in the area of the building and datable to ca. 580–570 B.C. might also be associated with the building's original construction, rather than with a later renovation, as Payne had concluded.[217] Interestingly, Menadier, who advocates the lower chronology of the building, is not inclined to associate the apparently contemporary roof tiles with the structure. She notes that the discovery of the tiles in the area of the building may not be indicative of their point of origin, since they may have been part of a terrace fill, and she concludes on the basis of the scale of the tiles that they are more likely to derive from an early-6th-century B.C. phase of the Temple of Hera Akraia by the harbor.[218] I myself see no objection to restoring the tiles on the Hearth Building, though I would freely admit that they might derive from a phase of the temple, as Menadier suggests.

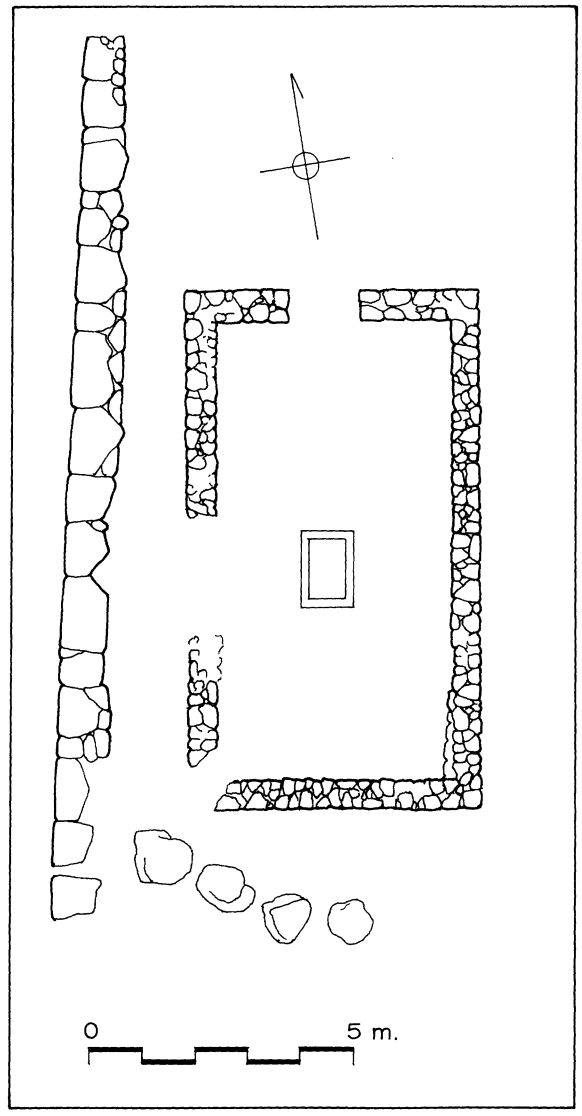

FIGURE 7.46. *Plan of the Hearth Building at Perachora.* After *Perachora* *I, pl. 140

Despite the uncertainties surrounding the Hearth Building, its function and manner of construction are

214. *Perachora* *I, p. 110. The identification of the building as a temple was subsequently accepted by Hammond, who concluded that it was sponsored by the Corinthians to replace the Geometric temple near the harbor, which he thought was built by the Megarians: Hammond 1954, pp. 98–101.

215. Tomlinson *1977, pp. 197–198. Tomlinson's reidentification has been accepted by Sinn (*1990, pp. 101–102) and Menadier (*1995, p. 89).

216. Tomlinson *1977, pp. 199–200; *1992, pp. 330, 333–334.

217. Because in Payne's scheme the date of the building is much earlier than that of the roof revetment, the revetment is assigned to a later replacement roof; *Perachora* *I, p. 113. For the date of the revetment, see Winter *1993, p. 69. The 7th century date given in *Perachora* *I, p. 115 is no longer tenable.

218. Menadier *1995, pp. 119–120.

of considerable interest for our understanding of early Corinthian architecture. If Tomlinson is correct in his interpretation of the building as a *hestiatorion,* it would be, according to any of the dates so far proposed for it, one of the earliest buildings of its type in Greece, and certainly the earliest attested at Corinth, where there is particularly rich evidence for ritual dining facilities from the late 6th century B.C. onward.

That the building's construction is so modest, using as it does rough stones rather than well-cut ashlar blocks, might be symptomatic of the building's early date, but it seems more likely to reflect a kind of hierarchy of construction standards in Archaic Corinth. At the top of the hierarchy is the monumental construction associated with temples, shrines, and other important public buildings, which was intended to impress and endure. At the bottom is the modest construction in rubble and mud brick of private domestic structures, which was intended merely to provide adequate shelter. The construction of the Hearth Building, which falls somewhere between the monumental and the absolutely basic, seems likely to reflect the status of the building as a public facility of some significance, but one that served a practical function not worthy of more lavish accommodation.

The Later Hestiatorion at Perachora

This building, excavated by Payne in 1930 in the valley that ascends eastward from the harbor at Perachora, is comprised of two square rooms, side by side, fronted on the north by a broad vestibule. The rooms have off-center doorways and were originally furnished with eleven stone couches along the walls.[219]

Although it was initially identified as a house by Payne and Dunbabin,[220] Tomlinson convincingly reidentified the building as a dining establishment, or *hestiatorion,* in his detailed study of the structure published in 1969.[221] In that study Tomlinson concluded that the *hestiatorion* was contemporary with the large, double-apsidal cistern that runs parallel to the north side of the building, and that both should be assigned to the end of the 4th century B.C.[222] This date was based on the following: (1) pottery sherds from portions of the foundation trenches of the *hestiatorion* and cistern, which provide a vague 5th-century B.C. *terminus post quem;* (2) the similarity of the stone couches in the *hestiatorion* to the late-4th-century B.C. examples in the Lerna complex at Corinth; (3) the similarity of the pebble floor of the *hestiatorion* to that of the late-4th-century B.C. stoa by the harbor at Perachora; (4) the evidence for a general revival of the Sanctuary of Hera Akraia during the time when Demetrios Poliorketes controlled Corinth; (5) the fact that *hestiatoria* generally flourish in the 4th century B.C.; and (6) Roux's generalization that cisterns with internal supports, such as that at Perachora, do not appear before the Hellenistic period.

In 1985 Tomlinson reconsidered some of the chronological evidence and suggested raising the date of the *hestiatorion* to the 5th century B.C. or possibly earlier.[223] In 1990 he argued more earnestly for a date in the last quarter of the 6th century, so that the building would be roughly contemporary with the Late Archaic Temple of Hera by the harbor.[224] This early dating of the *hestiatorion* (which explains the inclusion of the building in this study) is supported, in Tomlinson's opinion, by the following: (1) the irregular masonry of the socle of the walls of the building, which is not typical of the late 4th century B.C.; (2) the similarity of the plan of the building to the so-called Priest's House at Delphi, which certainly predates the early 4th century B.C. and may date as early as the 6th century; (3) the fact that later dining rooms are typically fronted by columns, whereas those at Perachora have a simple vestibule in front of them; (4) the fact that pebble floors, like the one in the *hestiatorion,* are attested back into the 5th century B.C. and might therefore extend back still earlier to the 6th century B.C.; and (5) the fact that the walls of the presumably contemporary double-apsidal cistern make use of Z-clamps, which also appear in the late-6th-century B.C. Temple of Hera Akraia.

In my opinion, none of this evidence for an Archaic date is conclusive, and some is, perhaps, misleading; for example, the masonry style of the walls of the *hestiatorion* is no more typical of the Archaic period in Corinthian architecture than of the 4th century B.C.; the simple plan of the *hestiatorion* with a vestibule rather than a columnar porch is paralleled by Hellenistic dining rooms in the Demeter sanctuary at Corinth;[225] and Z-clamps, such as appear in the double-apsidal cistern, are not limited to the Late Archaic period at Corinth, but continue in use well down into the 4th century B.C.[226] Because of the evidence of 5th-century B.C. pottery in the foundation trenches of the *hestiatorion* and cistern, which Tomlinson is compelled to dismiss as contamination, and because of the striking similarity between the couches of the *hestiatorion*

219. For a more detailed description, see Tomlinson *1969, pp. 164–169.

220. *Perachora* *I, p. 14; Dunbabin *1951, p. 61, fig. 1.

221. Tomlinson *1969, pp. 169–170. As early as 1933, de Waele (1933, p. 432, note 1) referred to the building as "the Hellenistic 'hestiatorion(?)'" without commenting further on its identity.

222. Tomlinson *1969, pp. 159, 163, 170–171.

223. Tomlinson and Demakopoulou *1985, p. 276.

224. Tomlinson *1990, pp. 95–98; *1992, p. 340.

225. See Bookidis 1990, pl. 9.

226. Clamps of this kind appear on the central portion of the Triglyph Wall by the Sacred Spring; see note 76 above.

and those of the Lerna complex at Corinth, I am inclined to believe that Tomlinson was correct, or at least closer to the truth, with his initial dating of the *hestiatorion* in the late 4th century B.C.[227] Therefore, unless further evidence is provided in support of Tomlinson's high date for the building, the *hestiatorion* at Perachora cannot be counted among the Archaic buildings of Corinth.

Hestiatoria and Bench-Rooms in the Sanctuary of Demeter and Kore

Excavations in the late 1960s and early 1970s revealed a great many dining rooms, or *hestiatoria,* on the lower terrace of the Sanctuary of Demeter and Kore on the north slope of Acrocorinth (Fig. 7.43).[228] Some of the earliest dining rooms, dated stratigraphically to the late 6th century B.C., stand isolated as simple one-room structures without porch or vestibule, while others are joined in complexes of two to six rooms aligned in a row.[229]

In all cases the rooms are entered by a single doorway, usually positioned near the center of the north (downhill) side. The interior walls are lined with permanent dining couches, which would have provided space usually for seven to eight reclining diners per room (assuming that only one person occupied each couch). The planning of the dining rooms is casual; the sizes and shapes of the rooms vary and the walls often meet at oblique angles. Construction is quite modest: walls are typically built of rubble masonry or stuccoed pisé (in some instances, but not always, set upon a rubble socle), floors are of compacted clay, and dining couches are made of earth fill packed behind narrow rubble or mudbrick facing walls, coated with a layer of clay.[230] There is no trace anywhere of decorative elaboration either on the facades or in the interiors of the dining rooms. In general, the design and execution reveals the essential utilitarianism of Archaic domestic architecture and stands in contrast to the grander, ashlar construction of the Archaic Oikos, which seems to have been the primary cult building of the sanctuary in the 6th century B.C. As at Perachora, it appears that we have evidence here for a hierarchy of construction standards.

In close proximity to the Archaic dining rooms of the Demeter sanctuary there are contemporary structures that have, instead of dining couches, narrow benches along their interior walls (Fig. 7.43). The two examples excavated are not well preserved, but from what survives, they seem to have been simple rectangular structures, similar to the dining rooms, and constructed in a similarly modest manner.[231] The function of these bench-rooms cannot be specifically determined from the evidence now available, but given the context of the rooms, it is safe to conclude that they had something to do with cult rituals.[232]

Triglyph Altar at Perachora

Approximately 14 m east of the Late Archaic Temple of Hera Akraia at Perachora are the remains of a triglyph altar, which was revealed in Payne's excavations. Although in the original excavation report this altar was dated to the 4th century B.C. and restored with a length of only about 5 m,[233] more recent study, by Plommer and Salviat, has suggested both an earlier date and a greater restored length.[234] According to Salviat's restoration, the altar has nine triglyphs and eight metopes on the long sides, giving a length of ca. 7.10–7.40 m,[235] and three triglyphs and two metopes on the ends, giving a width of 1.97 m.

In favor of this longer restoration of the altar is the fact that the resulting form corresponds better with that of other large altars in the northeastern Peloponnese as well as with the early triglyph altar associated with the Temple of Artemis at Kerkyra. Also in favor of the longer restoration is the fact that it allows the altar to be centered more closely on the axis of the Archaic Temple of Hera to its west and to be positioned symmetrically with regard to a columnar structure (baldachino?) added to the altar in the 4th century B.C. In its current state, the altar is not easy to date, but since details such as the "very slightly curved" tops of the triglyph slots reported by Payne[236] and the technique of constructing the frieze with separate trig-

227. Menadier (*1995, pp. 81–82) is likewise skeptical of the 6th century date proposed by Tomlinson. She follows Sinn (*1990, pp. 103–104) in dating the *hestiatorion* to the early 4th century, using the *terminus post quem* indicated by the pottery from the foundation trenches of the *hestiatorion* and Double-Apsidal Cistern.

228. I thank Nancy Bookidis for having discussed with me the architecture of the Demeter sanctuary in advance of its final publication in *Corinth* XVIII, iii, and for checking this portion of my manuscript.

229. The Archaic dining rooms are briefly discussed in Bookidis 1990, pp. 87–89, pl. 7. A full description is set out in *Corinth* XVIII, iii, pp. 22–38, 41–49.

230. The nature of the roofs of these structures remains uncertain, since no roof tiles can be associated positively with any of the buildings.

231. These are referred to as Room 1 and Room 7 in Bookidis 1969, pp. 305, 308, fig. 3, and as Building O:26–27 and Building M:17–18 in *Corinth* XVIII, iii, pp. 38–41, fig. 5.

232. On the function of bench-rooms, see Bookidis 1990, p. 91, and *Corinth* XVIII, iii, p. 50.

233. *Perachora* *I, pp. 89–91.

234. Plommer and Salviat *1966. See also Rupp *1974, pp. 13–19.

235. Payne's dimensions for the frieze units (*Perachora* *I, p. 90, note 1) would give 7.40 m for the total length, but Salviat (Plommer and Salviat *1966, p. 209) thinks Payne's measurements are generally too long.

236. *Perachora* *I, p. 90. These details no longer survive to be verified.

lyph and metope blocks are paralleled in the frieze of the Late Archaic temple, it seems reasonable to conclude, with Plommer,[237] that the altar was built in conjunction with the temple.

Triglyph Altar or Wall(?) on Temple Hill

Along the northern edge of the ancient roadway that skirts the north side of Temple Hill, a fragmentary Doric frieze block lies on its side (Fig. 7.47). It obviously is not in situ, but how and when the block made its way to its current position is not clear. Previously unpublished, and apparently unidentified, this block preserves the original left end of a metope, 0.676 m high with a 0.067 m–high crowning fascia. Above the metope, but carved in the same block, is a crowning member, 0.125 m high, composed of a fascia, which still retains ample traces of red paint, topped by a hawksbeak molding.

Since the left end of the block is broken away, it is impossible to determine the original length of the block, and thus whether the block included a triglyph to the right of the metope. The left front edge of the metope is slightly beveled, where it was once overlapped by the projecting lip of the triglyph originally positioned there. The left end of the crowning element is rebated, presumably for the purpose of bringing the visible joint at the front in line with the edge of the triglyph below. The back of the block is roughly worked with a flat chisel, as if it were not meant to be seen; it slopes in toward the top and has no anathyrosis. The top is also rather rough and has an exposed clamp cutting, suggesting that it was not intended to be seen, but traces of white stucco and a small round cutting on the top would seem to indicate that at one time the top was not covered by a successive course.

The date of this block is not easy to determine, since the hawksbeak molding is badly damaged, but the existence of a cutting for a swallow-tail clamp on the top of the block and the use of anathyrosis on the bottom together point to the 6th century B.C. A peculiarity of the anathyrosis, namely, that the smooth, outer margin meets the front face at an acute (rather than a right) angle, is paralleled on blocks of the Temple of Apollo, suggesting that the frieze block may be contemporary with the temple.[238]

Because the metope of the extant block is surmounted by a crowning element, there is no possibility of restoring the block to the exterior of a Doric building, where a mutular geison regularly lies directly on the frieze. It might be restored to the pronaos or opisthodomos of a peripteral temple, where typically there is a crowning element between the frieze and the ceiling beams, but the height of the frieze is much smaller than we should expect for a peripteral temple. Far more likely is the association of this frieze block with a triglyph altar or a triglyph wall, where a crowning member might be expected to substitute for the geison above a Doric frieze.[239] Given the location of the one extant block at the north edge of Temple Hill, we might imagine that it belonged either to a triglyph altar associated with the Temple of Apollo, and so probably located to the east of the temple, in the area of the Roman quarry, or to a triglyph wall, perhaps bounding the northern edge of the temenos.

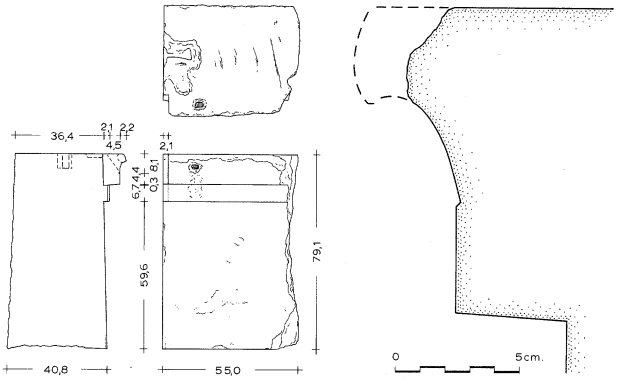

FIGURE 7.47. *Combination metope and frieze crown block from Temple Hill*

Whether altar or temenos wall, the Archaic construction to which this frieze belonged clearly survived for many years and was renovated in Roman times, for on the outer face of the metope there are a few marks of a claw chisel, used to freshen the surface, and slight traces of thick Roman stucco.

FOUNTAIN HOUSES

The Sacred Spring

To the west of the upper (southern) end of the Lechaion Road are the remains of the Sacred Spring, first brought to light in 1900.[240] In its first monumental phase, roughly datable to the late 6th or early 5th

237. Plommer and Salviat *1966, p. 214. To reinforce the 6th century date of the altar, Plommer states that the altar plinth has "deeply scored setting lines" like those used in the Temple of Hera and notes that this detail might indicate that the same masons were used for both structures. Menadier (*1995, p. 15), however, has rightly observed that the lines on the altar are unlike anything on the temple; they are, in fact, not so much lines as the edges of a raised margin around the bottom of the altar.

238. Such anathyrosis, which is midway between normal band anathyrosis and edge anathyrosis, can be seen on the one extant anta block of the Temple of Apollo. For a general discussion of anathyrosis, see above, pp. 105–106.

239. Compare the triglyph altar at Perachora and the Triglyph Wall near the Sacred Spring (*Corinth* I, vi, pp. 138–141).

240. Richardson 1902a provides a preliminary excavation report. The first detailed publication of the building is in *Corinth* I, vi, pp. 157–177. For additional biliography, see Landon in this volume, p. 59.

century B.C., the fountain house was, as Williams has argued, a rectangular roofed structure, approximately 6.5 m wide and 9.0 m long, backed against a natural cliff face to the west (Fig. 7.41).[241] The western part of the structure was occupied by a rectangular reservoir, fed by two rock-cut tunnels cut into the cliff. The reservoir was fronted by a narrow draw basin, whose bottom lay about a meter below the level of the pavement at the front of the building. The roof of the structure was supported by three rows of five piers, the outer three forming a tristyle-in-antis facade at the outer edge of the draw basin. In contrast to the early-5th-century B.C. fountain house at Megara,[242] which provides a parallel for the basic form of the fountain house of the Sacred Spring, there was no parapet at the front of the draw basin[243] and no porch at the front of the building to provide shelter for individuals gathering water from the draw basin.[244]

Of the superstructure of the building, only the walls of the reservoir, constructed of large, well-cut ashlar blocks, remain in situ. A single angular block reused in a later repair of the building has been identified by Williams as a tympanum block of the building's original facade, but its slight depth (0.25 m) and comparatively steep slope (17°) raise doubts about its identity.[245] No other elements of the facade have yet been recognized. Since beddings in the surface of the pavement at the front of the building indicate that there were three rectangular piers in-antis, it is tempting, despite the lack of hard evidence, to restore the facade with a Doric entablature, on the basis of the Doric Apsidal Building nearby, which has a comparable tristyle-in-antis facade with piers in place of columns.

Glauke

The fountain house associated with Glauke, the daughter of the mythical king Kreon, is one of the most conspicuous landmarks of Corinth. Though always visible above ground, it was excavated in 1899, and its identity was immediately determined with the help of Pausanias (2.3.6).[246] Located at a distance of some 80 m west of the Temple of Apollo, the fountain, in its final form, consists of a massive cube of bedrock isolated by extensive quarrying of the limestone (poros) ridge that originally extended eastward to Temple Hill. In contrast to Peirene and the Sacred Spring, there is no natural water source at the site of this fountain house; instead, water was piped in from some distance to a series of cement-lined reservoirs hollowed out of the southern portion of the cube of rock. Access to the water was provided by draw basins approached from a porch cut into the north side of the natural rock mass.

The date of this fountain house is problematic. Because the building is assigned to the Archaic period in Richardson's initial excavation report and in Elderkin's more detailed publication,[247] I have included it in this survey, but such an early date is by no means assured. Richardson suggested that the structure's simplicity and massiveness "convey the impression of great antiquity." He thought, moreover, that the idea of creating the fountain may have occurred at the time of the construction of the Temple of Apollo, when stone around the fountain was quarried for the temple. From the fact that other Greek tyrants, such as Polykrates and Peisistratos, are known to have concerned themselves with the provision of water, Richardson concluded that Periander was responsible for the construction of the fountain house of Glauke.[248] Elderkin in his study of Glauke says little about its date. He notes that "the fountain has been assigned to the time when the temple of Apollo was built," and he once mentions the name of Periander as the possible builder.[249] He does not, however, offer any evidence in support of a 6th century B.C. date except for the similarity of tool marks on the fountain to those on the Temple of Apollo and the central section of the Triglyph Wall by the Sacred Spring (which he erroneously assigns to the 6th century B.C. because of its Z-clamp).[250]

More recently Williams has argued that the fountain is of Early Roman date.[251] The evidence that he advances in support of this dramatic down-dating is: (1) the vaulted form of the ceiling over the porch of the fountain house, which shows no sign of being an alteration, is more consistent with Roman than with Greek design; (2) the cutting through the porch floor,

241. Williams 1969a, pp. 38–40. Hill (in *Corinth* I, vi, p. 173) unconvincingly restored the building as a hypaethral court surrounded on three sides by retaining walls.

242. Gruben *1965.

243. That there was never a parapet is confirmed by the fact that there are wear-marks left by water jars at the edge and top of the pavement between the piers of the facade.

244. There is no evidence that the pavement in front of the fountain ever supported columns, and there is no indication of a robbed foundation trench beyond the pavement, where one might restore a stylobate.

245. Williams 1969a, p. 40, pl. 12:b.

246. For the initial excavation report, see Richardson 1900c. A detailed report appears in Elderkin 1910, and this is reproduced with slight editing by B. H. Hill in *Corinth* I, vi, pp. 200–227. For additional bibliography, see Glaser *1983, p. 72, and Landon in this volume, p. 48, note 21, and p. 60.

247. See the preceding note.

248. Richardson 1900c, pp. 470–471. Here, too, Richardson erroneously concluded that the Temple of Apollo was "built in the time of Periander, if not before." The association of Periander with Glauke was repeated by Fowler (1922, p. 223).

249. Elderkin 1910, pp. 24, 40; *Corinth* I, vi, p. 222.

250. In the original publication, Elderkin (1910, p. 24, note 24) rightly warns that "this method of dressing poros blocks may have been in use a long while"; in the edited version that appears in *Corinth* I, vi, p. 222, this cautionary statement is omitted. Following Elderkin, Dunkley (*1935–1936, p. 149) dates Glauke to the 6th century.

251. Williams and Zervos 1984, pp. 98–100.

which has been interpreted as an exit route for the removal of rock quarried from the reservoirs, lies at the level of a Roman quarry north of Glauke, suggesting that the creation of the reservoirs was contemporary with the Roman quarrying; (3) the use of a terracotta pipeline, rather than a tunnel or stone channel, to feed the fountain is more likely for the Hellenistic or Roman period at Corinth than for the Archaic or Classical period.

Although this evidence might seem to offer strong support for the structure's late date, it does not constitute incontestable proof. The porch ceiling is not a built vault, and so need not be Roman;[252] the relationship of the level of the cutting in the porch and that of the Roman quarrying north of the fountain may be coincidental;[253] and the pipeline may be the result of a later alteration. Against a Roman date for Glauke, there is, moreover, the evidence of the original hydraulic cement used in the reservoirs and draw basins of the fountain house. It is the same type of hydraulic cement that is used elsewhere in Corinth in constructions of the Greek period, for example, on the walls of the 5th-century B.C. Painted Building at the north side of Temple Hill and in the water conduit that encircles the athletic platform (?) at the southeast corner of the later Forum. As Elderkin observed, and as is still apparent from the remains of the fountain, the surface of the original cement lining of Glauke was subsequently picked in order to enhance the adhesion of a later layer of cement, which has a different composition.[254] Since this later cement resembles other Roman cements at Corinth, it seems reasonable to conclude that the renewal of the cement lining of the fountain was connected with a general refurbishment of the structure after the reestablishment of Corinth in Roman times.[255]

There is one further observation to make regarding this fountain house. In his commentary on Pausanias, Roux suggested that the original form of Glauke consisted of reservoirs cut into a continuous rock cliff, and that the cubic form of the existing structure was not created until the refounding of the city in Roman times.[256] In a plan, prepared by Williams in 1973,[257] showing the center of Corinth in the early 6th century B.C., the fountain is shown in a hypothetical primitive state, much as Roux envisaged. Although such a primitive state with reservoirs cut into the natural rock escarpment might possibly have existed at the beginning of its history, the presence of Greek hydraulic cement in the drain channel cut low down on the fountain's east face would seem to indicate that at least the east side of the structure was completely detached from the surrounding rock in its pre-Roman phase.[258]

Peirene

Although the chronology of the early phases of the Fountain of Peirene, located near the upper end of the Lechaion Road valley, has never been firmly established, it seems quite likely that such an important water source would have been exploited in the Archaic period, if not earlier.[259] Here, as in the Sacred Spring, on the other side of the Lechaion Road, the fountain developed at a point where a spring naturally flowed from a cliff face where water was trapped by a marl layer beneath a more permeable conglomerate layer.

The earliest monumental remains of the fountain, which are those most likely to date to the Archaic period, consist of a wall and two supply tunnels.[260] The wall, which probably formed the west end of the fountain, is built of large ashlar blocks. It seems originally to have extended in a southeasterly direction beneath the projecting conglomerate layer to the recessed face of the underlying marl layer. The west (back) side of the wall was provided with a recessed water channel, which carried water from a long supply tunnel behind the fountain and delivered it, by means of two holes cut through the wall, to water spouts on the east side.[261]

252. The rock-cut vault of the porch might be compared to rock-cut vaulted tunnels that were constructed long before the Roman period in Corinth, for example in the Lerna Spring (see *Corinth* XIV, pls. 24:1, 27:1).

253. Certainly the cutting in the porch and the Roman quarry need not be contemporary; at the time of the construction of Glauke, the rock quarried from the reservoirs might have been hauled out through the cutting in the porch and then up a ramp to a higher surface level.

254. *Corinth* I, vi, p. 227.

255. Scientific testing of the cements used in Glauke and other hydraulic installations at Corinth has been undertaken by Ruth Siddall. It is hoped that the results of her work will lead to firmer conclusions about the chronology of these installations.

256. Roux 1958, p. 120. Roux accepts Scranton's idea (*Corinth* I, ii, pp. 151–165) that the early sanctuary of Hera Akraia was situated on top of Glauke and could only have been accessible if the natural rock ridge was still largely intact in the Greek period.

257. Published in Robinson 1976a, fig. 5.

258. For the drain, see *Corinth* I, vi, p. 210, figs. 127, 132. Charles Williams has informed me that the Greek date of quarrying around Glauke may be further supported by the fact that in the western extension of the quarry (in the area south of the excavation house) Greek sherds were found at the bottom of the fill.

259. The basic publication of Peirene is *Corinth* I, vi, pp. 1–115. The original monumentalization of the fountain has, without precise testimony, been frequently linked with the Kypselid tyranny; see Ure *1922, p. 75, note 5; Glotz *1929, p. 114; Dunkley *1935–1936, p. 147; Berve *1967, p. 23; Young *1980, p. 35; Glaser *1983, p. 76. For additional bibliography, see Landon in this volume, pp. 58–59.

260. In *Corinth* I, vi, fig. 5 and pl. VI:1, the wall and tunnels are assigned to the first Greek phase of the fountain. The third phase of the fountain, dated to the 4th century B.C. on the basis of the crowning moldings of the pier capitals, provides a not very precise *terminus ante quem* (see *Corinth* I, vi, p. 39). Fowler (1922, p. 200) and Dunkley (*1935–1936, p. 147) erroneously associated the six basins of the third phase with the first monumental phase of the fountain, which they associated with the tyranny.

261. In a second phase, the original water channel and holes for spouts were replaced by a lower channel and two spouts positioned directly beneath those of the first phase.

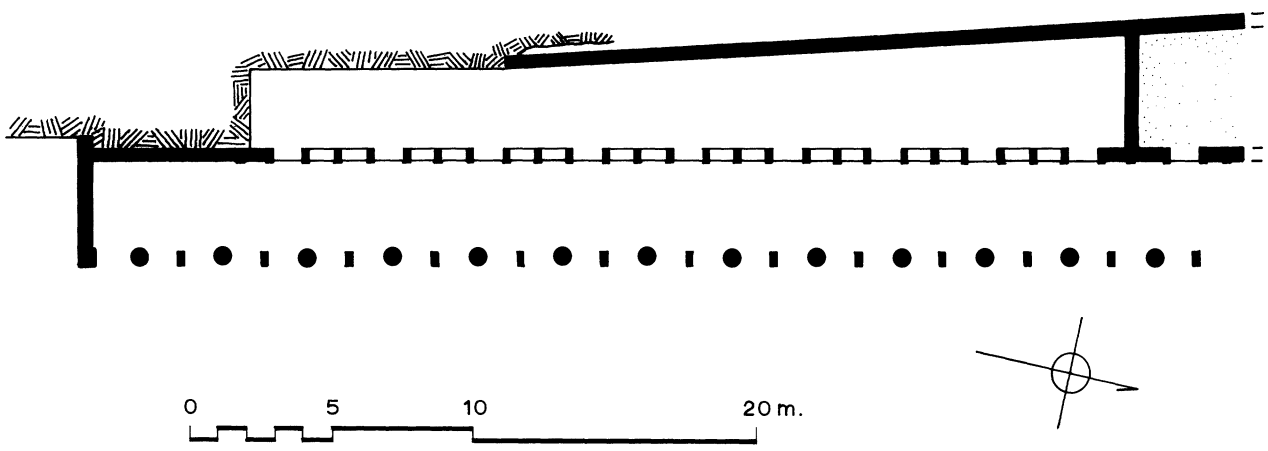

FIGURE 7.48. *Restored plan of the North Building.* Modified from *Corinth* I, fig. 150 and pl. XIX

Another supply tunnel, some 15 m to the east, might have supplied water to corresponding spouts in the east wall,[262] but nothing of that wall survives to offer confirmation. There is now no evidence to indicate if there were spouts in the back wall or draw basins on the interior of the fountain. There is, likewise, nothing to indicate if the interior was partitioned or the exterior was elaborated architecturally.

Cyclopean Fountain

Immediately to the north of Peirene, and fed by the same source, is an irregular hexagonal water basin, 1.60 m wide, fronted by a low parapet; the basin is enclosed within a rough, corbel-vaulted grotto formed of large conglomerate blocks whose "cyclopean" aspect gives the fountain its name.[263] At one time the fountain was approached from the west by a ramp or stairway that descended between flanking walls to a small platform in front of the basin, but this arrangement seems not to be original.

The date of this fountain remains obscure. Hill suspected that it was "probably the earliest built fountain that drew water from Peirene," but he was unable to obtain stratigraphic evidence for the date because of later constructions. In Hill's plan the original construction of the fountain is assigned to the Greek I phase, to which is also assigned the first monumental phase of Peirene. Unfortunately, nothing further can be said about the chronology of this peculiar little fountain until further investigations are undertaken.

OTHER PUBLIC BUILDINGS AND CONSTRUCTIONS

North Building

Located along the east side of Temple Hill and immediately west of the Lechaion Road valley are the remains, discovered in 1902, of a north–south stoa, built of well-cut ashlar blocks, which has come to be known as the North Building.

As Stillwell correctly observed, the remains of the building belong to two distinct phases, the second of which can be dated with some confidence to the late 5th or early 4th century B.C.[264] In its original form, the building had a colonnade fronting the east side of a row of shops that backed up against the bedrock escarpment of Temple Hill (Fig. 7.48). There could conceivably have been a second colonnade in front of the first, but any evidence there may have been for it was removed by the construction of Roman shops along the west side of the Lechaion Road. The overall length of the building was approximately 42 m, and its depth was at least 8 m at its north end. The columns of the colonnade were less than 0.62 m in diameter and were spaced approximately 3.0 m on center. Blocks between the base slabs for the columns might have held supports for a parapet or railing between the columns. The front wall of the shops behind the colonnade is of particular interest, for the upper wall was largely eliminated between the doorways to the shops to provide waist-high counters from

262. This is the so-called East Tunnel; see *Corinth* I, vi, pp. 24–25, pl. II.

263. The primary publication of the fountain appears in *Corinth* I, vi, pp. 44–47; see also Glaser *1983, p. 12.

264. Coulton (*1976, pp. 52–53) has, with good reason, questioned Stillwell's restoration of the second phase of the North Building, but his suggestion that the large-scale colonnade of the late 5th or early 4th century B.C. belongs to the first building phase, while the shops and smaller colonnade in front of them belong to a second phase, cannot be accepted. It is clear that when the Classical colonnade was constructed with the purpose of either expanding or updating the facade of the earlier stoa, the stylobate of the new colonnade established a higher floor level for the stoa. To compensate for the raised level, the interior columns were elevated on low round plinths (one of which survives) and the thresholds of the shops were raised (the raising of the threshold can be seen in the southernmost doorway). This evidence for the raising of the earlier floor level, which has not previously been recognized, confirms the fact that the rooms and inner colonnade precede the addition of the outer colonnade. It also eliminates the need for the hypothetical wall that Stillwell (*Corinth* I, fig. 150) restored between the outer colonnade and the original interior colonnade, since that wall was added in response to a perceived need to mark off the higher floor level of the new colonnade from the lower level of the original building.

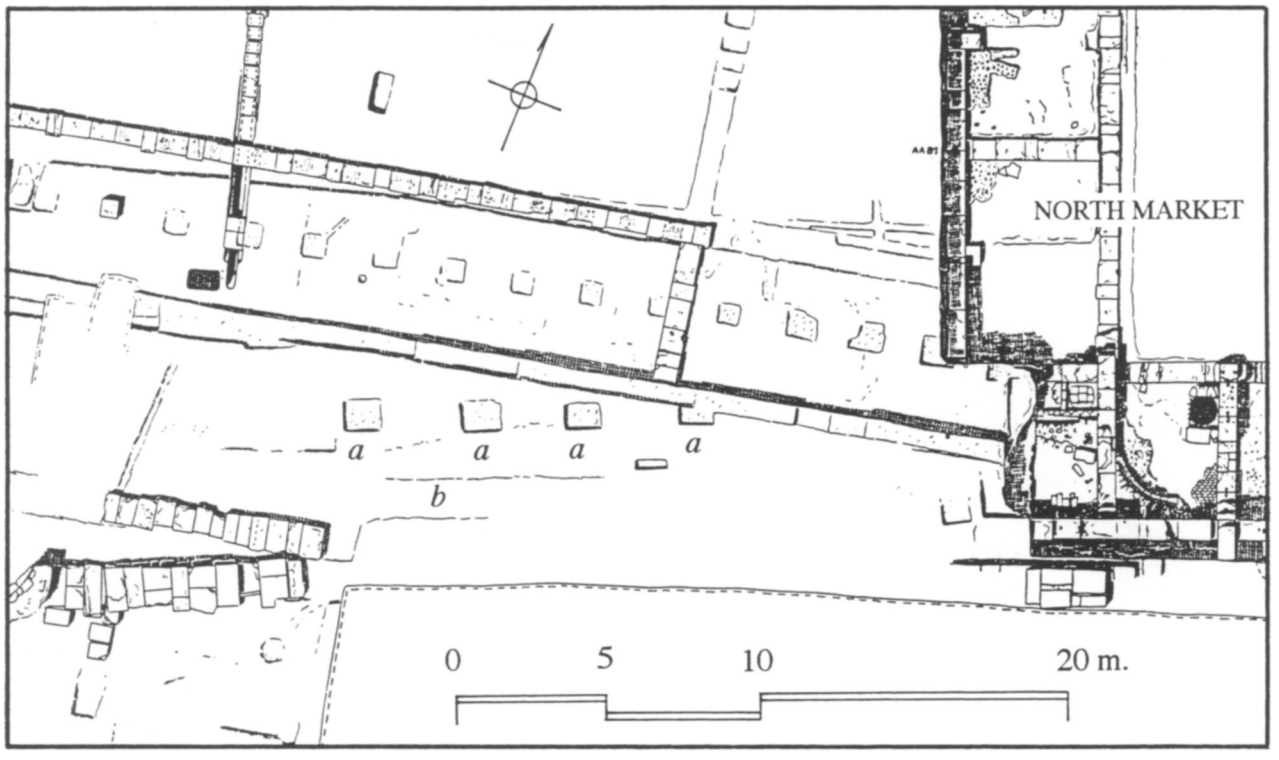

FIGURE 7.49. *Plan of the remains of North Stoa I.* From *Corinth* I, iii, plan K

which, presumably, wares might be sold. Rectangular piers between the counters apparently supported lintels extending from the jambs of the doorways. As Stillwell determined, there would have been room for ten doorways in the wall with a pair of counters between every two doorways. Although one might expect permanent partitions between the areas behind each doorway, there is in fact evidence for only one wall, which creates a nearly square room at the north end of the building. There is no evidence for the roofing of this building, but the rear wall is not quite parallel to the front wall of the shops and the colonnade, and this must have required some unusual accommodation.

Stillwell does not suggest a date for the first phase of the North Building, but he vaguely associates with it some of the Archaic anta capitals that were found in the area.[265] There is, however, no way to determine which, if any, of the capitals belong to the building and hence to derive a secure date from them. Since the second phase of the building can be dated to the end of the 5th or beginning of the 4th century B.C., the first phase must obviously be earlier, but whether it can be as early as the Archaic period is not altogether clear. The irregularity of the plan—in particular the fact that the back wall is not parallel to the front of the building, and that the columns of the colonnade are not spaced with regard for the shop entrances behind—might square better with an Archaic than a Classical date. The modest scale of the structure might also suggest an early date, but at Corinth this is not decisive, for, as the so-called North Stoa indicates, comparable public buildings were still produced in the 5th century B.C.

A possible argument against an Archaic date for the North Building is the fact that it would be the only stoa of the Archaic period to have rooms behind its colonnade (the next example is not attested until the last quarter of the 5th century B.C.). This is a point worth considering, but the fact that in the 6th century B.C. rooms could be set behind a peristyle court in the West Building at the Argive Heraion suggests that they could also be set behind the colonnade of a simple stoa when required.

North Stoa I

Along the north side of Temple Hill in the area immediately west of the Roman Market, excavation in 1930 brought to light remains of three successive stoas that have come to be known as North Stoa I, II, and III.[266] Of the earliest structure, which is the only one to concern us here, all that survives are rock-cut beddings for four base slabs to support columns or piers, spaced ca. 3.7 m on axis (labeled *a* in Fig. 7.49), and a

265. *Corinth* I, p. 226, pl. XXI:2–7. Stillwell does not propose a date for any of these anta capitals. The hawksbeak crowning moldings of 2, 3, 4, and 6 are included in Shoe *1936, pp. 117–118, pl. LVI:5, 6, 11, 12, where they are included among other moldings dated before 480.

266. For the final report of the North Stoa, see *Corinth* I, iii, pp. 163–173, pl. 72, plans K, L, M. The preliminary excavation report appears in de Waele 1931b.

continuous bedding for a portion of the back wall, located some 2.00 m farther south (labeled *b* in Fig. 7.49). From this evidence it appears that the building was a rather shallow stoa, at least 12 m long, with widely spaced supports facing north.

The date of the structure is not known, but since it preceded North Stoa II, which is dated to the third quarter of the 5th century B.C. by pottery found beneath its floor,[267] it is probable that North Stoa I was built in the first half of the 5th century or earlier. The fact that North Stoa I is aligned with the axis of the 6th-century B.C. Temple of Apollo,[268] whereas its successors were oriented in a more truly northerly direction, might be put forth in support of an Archaic date, but such evidence is hardly conclusive.

The Diolkos

At the Isthmus of Corinth extensive remains of the Diolkos were uncovered by Verdelis between 1956 and 1960. The excavations, promptly reported by the excavator, revealed that this roadway, by which ships and/or cargoes were transported some 7 km overland between the Saronic and Corinthian Gulfs, was 3.4 to 6.0 m wide and was paved with cut blocks of local limestone (poros).[269] Supplementary constructions built in association with the Diolkos include a ramp, perhaps for the transfer of ships from one cart to another,[270] and a broad paved area adjacent to the west end of the Diolkos, which may have been used for the loading and unloading of cargoes.[271]

On the basis of the letter-forms of masons' marks on the paving blocks, Verdelis concluded that the construction should date to the early 6th century B.C., to the time of the tyranny.[272] This early date has generally been accepted by scholars despite the generally weak supporting evidence.[273]

Racecourse

In 1937 and 1980 remains of a Late Archaic racetrack for footraces were excavated beneath the area of the later Corinthian Forum.[274] The track itself consists of a leveled surface some 15 m wide covered with layers of crushed limestone (poros), each of which apparently reflects one year's use. The east end of the track is marked by a starting sill (*balbis*). A corresponding sill does not survive at the west end of the track, but the location of a road running northward from the so-called Punic Amphora Building is taken to indicate that the track could not have been more than 165 m long. Its length was therefore rather shorter than other known Greek tracks.[275] The starting sill at the east end is unique among Greek starting lines in having a subtly curved plan. With a width that varies from 1.25 to 1.30 m, the sill originally had positions for 16 runners,[276] each of whom was provided with two short foot grooves, which would require the runner to start from an unusually wide stance with his left foot approximately 0.60–0.80 m in front of his right. The sill seems to have been built with squared limestone (poros) blocks beneath each starting position and a packing of rubble and mortar in the intervals. The entire surface of the sill was covered with a layer of lime plaster frescoed blue-black. Each starting position was marked by an alphabetic numeral (Α through Π, including Φ but excluding Χ) painted in red.[277] There is no evidence of any kind of starting mechanism associated with this early starting line, though there is for its 3rd-century B.C. successor.[278] There is also no evidence of embankments for seating alongside the track or for the customary water channels at the edge of the track in its early phase.

The earliest surface of the running track is dated by associated pottery to the late 6th century B.C. The starting line might well be contemporary with the establishment of the first running surface, but it cannot be dated independently with precision.

Because of the unconventional length of the track and because of the unusual starting position required by the wide separation of the starting grooves, it has been suggested that this early track at Corinth was used specially for torch races in honor of Athena Hellotis.[279]

267. *Corinth* I, iii, p. 174.

268. *Corinth* I, iii, p. 163.

269. Excavation reports: Verdelis 1956, 1959, 1962, 1966a, 1966b. For subsequent studies of the Diolkos, see Wiseman 1978, pp. 45–46; Cook 1979, pp. 152–153; 1986; MacDonald 1986; Raepsaet 1993.

270. For this interpretation of the ramp, see Raepsaet 1993, p. 254.

271. Verdelis 1966a, pp. 136–141.

272. Verdelis 1956, pp. 58–59; 1958, p. 143.

273. See Young *1980, pp. 29–31; Cook 1986, p. 66; Salmon 1984, pp. 136–137; Raepsaet 1993, pp. 239, 256.

274. The early racetrack is not presently visible, having been reburied after excavation. The description presented here is based entirely upon the excavation reports: Morgan 1937, p. 550; Williams and Russell 1981, pp. 2–10.

275. By contrast, the later track at Isthmia is 181.20 m, that at Epidauros is 181.31 m, and that at Olympia is 192.28 m; see *Isthmia* *II, pp. 63–64.

276. In Williams and Russell 1981, p. 7, the number of positions is said to be 17, but the drawing in fig. 2 of the same article shows 16, as seems to be required by the numbering system.

277. There are, in fact, two series of letters; the first was scraped away and replaced by a second, larger, series.

278. It seems unlikely that there could ever have been a starting mechanism. There was certainly no mechanism like that in the 5th-century stadium at Isthmia, since there are no cuttings for upright posts between the starting positions (see *Isthmia* *II, pp. 49–51). Since the starting line is curved in plan, neither could there have been a starting system in which a bar or rope was stretched across the front of the runners. For general discussion of starting mechanisms, see *Isthmia* *II, pp. 135–142; Harris *1964, pp. 67–70.

279. See Morgan 1937, p. 549; Williams 1978c, pp. 155–157.

Private Buildings

Houses

Remains of Archaic houses have been found at various places in Corinth: at the south end of the area of the later Forum area,[280] near the Sacred Spring (Fig. 7.50),[281] in the area of the Hemicycle on the Lechaion road,[282] in the Potter's Quarter,[283] and perhaps in the area of the Asklepieion.[284] They are all unpretentious multiroomed structures, some neatly rectangular in plan, some more irregular. Scant remains of their superstructures consist of rubble masonry and pisé walls. They do not differ significantly from Corinthian houses of the 7th century B.C., and some are in fact simply late phases of 7th-century structures.

If the Kypselids and wealthy Bacchiadai of Archaic Corinth had grand homes of architectural distinction, they have not yet been found.

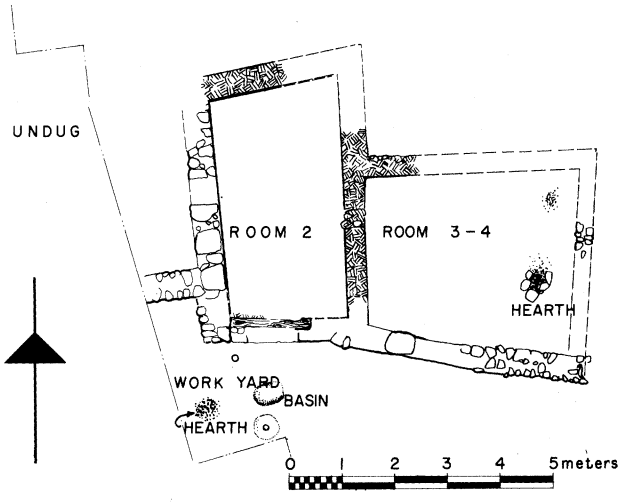

FIGURE 7.50. *Plan of the 6th-century phase of the Protocorinthian House near the Sacred Spring.* After Williams and Fisher 1971, fig. 4

280. Remains of three 7th- or 6th-century B.C. houses were partially excavated by Williams in 1971 and 1972 below Buildings II and III at the south side of the Forum area. House 2, the most fully revealed, was, according to Williams, a rectangular house with four rooms (or three rooms and a court) and with a possible livestock yard on its west side. This house and its neighbor to the west were both destroyed at the beginning of the 5th century. Williams and Fisher 1972, pp. 145–149; 1973, pp. 12–13; Williams, MacIntosh, and Fisher 1974, fig. 4.

281. House 1 near the Sacred Spring was first built in the 7th century B.C. with four irregularly shaped rooms and a courtyard. In its third phase, datable to the 6th century, the plan was apparently abbreviated to two rooms. The house was finally "condemned, expropriated, or bought to make room for the expansion of the temenos of the Sacred Spring in the second half of the sixth century B.C.": Williams and Fisher 1971, pp. 5–10.

282. The so-called Trader's Complex, a poorly preserved, large house, of which portions of three or four rectangular rooms have been excavated, was renovated several times in the course of its history, which extends from the last quarter of the 7th century to the second quarter of the 6th; see Williams, MacIntosh, and Fisher 1974, pp. 17–24.

283. In the area of the Potters' Quarter, Williams (1981, pp. 413–415) has shown that a late-5th-century B.C. shrine (the "Erosa Shrine") was built over a preexisting rectangular house with a central(?) court. Williams neither confirms nor refutes Stillwell's 6th century B.C. date for the original construction (*Corinth* XV, i, pp. 28–29).

284. Cuttings in the bedrock east of the early shrine in the Asklepieion look as if they might belong to an irregularly planned two-roomed house, but nothing at all is certain about the structure's date or function. In *Corinth* XIV, pp. 13–14 it is identified as an oikos connected with the cult.

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