AN INTERMITTENT TOWN: EXCAVATIONS AT COSA, 1991-1997
PART 2: THE STRATIGRAPHY

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The following are summary accounts of each trench. All the relevant stratigraphic units are mentioned, in bold type. Where a series of tips are referred to, they appear in the order of their deposition, with the lowest first. Each trench is followed by the name of the person who supervised it, and was responsible for the initial report. Elizabeth Fentress wrote all the final reports published in this section with the exception of the final report on **Forum V**, which is entirely the work of Adam Rabinowitz.

The Arx and the area to the west (IV G) (fig. 45)
(General Direction, Elizabeth Fentress)

ARX I
(ELIZABETH FENTRESS, 1990)

Objectives. The trench was excavated to the west of the main gate of the Arx, in an area where no previous excavation had taken place. The aim was to establish the post-Republican stratigraphy of the Arx, in an area which was certainly undisturbed by previous excavation.

Dimensions. The trench measured 14 x 6m., with an extension towards the northwest of 3 x 4.5m. Excavation was completed as far as Republican levels only in this latter part.

Stratigraphy. The earliest activity on the site was the leveling of the Arx. This involved the cutting of a large amount of stone in the upper area and its redeposition down slope, along the line of the northern terrace wall (**31**). Above this a rough surface of earth and small stones accumulated, (**30**). Over this a second surface, **26**, was apparently associated with the construction of a building on the northwest side of the trench. Only five walls of this structure were visible, and these were largely robbed-out. Two walls, **22** and **28**, formed a corner around a floor in hydraulic cement with quarter-round mouldings: there is some evidence that they were built of mortared stones (fig. 46). Two other walls formed a second corner, but were even less clear as their robber-trenches lay almost entirely under the section. There seems to have been a door between the two rooms formed by these walls, but we can say very little about the building that they belonged to, except that it fronted on the street. Here a single course of large blocks 18 meters long seems to indicate that the building was almost exactly the width of the large houses around the forum. We may tentatively associate it with these, although our evidence for its dating is limited to the spread of late-first century B.C. rubble which covers it. This consists of a thick layer (**18**) containing large quantities of pottery - principally amphorae, with some fine wares – that was deposited outside these walls, although there is no evidence that the building was in use during the deposition. This layer may represent deliberate leveling, or simply a midden deposit, although it was not particularly rich in bones or other debris. Spreads of plaster (**17**) over its northern portion may suggest some attempt at the creation of a deliberate surface: they are perhaps too distant to be related to the repairs to the Capitoline temple, which took place in the Augustan period.

The deposit was then cut by the robber trenches (**20/21**) which removed most traces of the building. Although no finds were associated with the robber trenches, it is likely that the robbing of the building and the leveling of the area took place during the Augustan period, when the temples of the Arx were all refurbished. A single new surface (**5** and **6-9**) was deposited over the robber trenches and the Augustan leveling. This was formed of compacted dark earth, fairly irregular, with patches of bedrock emerging at intervals, particularly at the southern end of the trench. A number of small stake holes were identified in this surface, but they formed no convincing pattern, and are likely to represent root activity. The dating of this surface depends on a 6th-c. fibula (part IV: p. 242) and the presence of four sherds of 6th-c. coarsewares, similar to those found in the construction trench of the 6th-c. castrum wall.

A final surface (**3**), no more than 4cm. thick, was compacted over the top of this, but its association with a fine, black, ashy topsoil suggests that it is related to pre-modern charcoal burning.

ARX II (FIG. 47)
(MICHELLE HOBART, 1991)

Objectives. As with the previous trench, the excavation of Arx II was part of the investigation of late-Roman and medieval stratigraphy of the Arx. In this case, we knew that the area had been previously excavated, but hoped by careful cleaning to check the conclusions reached in the 1948-1950 campaigns.

Dimensions. The area was an irregular trapezoid, measuring roughly 18 x 15m. It was delimited by: the medieval wall of the Arx, the edge of the structure designated Building I, room A, the line of the wall between Building II rooms A and B, and the edge of the ramp leading up to these rooms.

Stratigraphy. Most of the area was already cleaned to bedrock, and our cleaning was intended to reveal the relationships between the buildings. Within the area of the excavation the earliest structure was temple D, against which Building I room A was constructed. This structure used the column drums deriving from the temple both in its southwestern wall (**508**) and in a line along the center of the room. These probably supported a wooden floor. In fact, the 1951 excavations revealed a burnt deposit consisting of wooden planks, seeds, and other debris, which has led to the interpretation of this structure as a granary.

To its southwest ran a cobbled road, which continued the line of a Roman road to the Arx postern. Two further rooms, B, and C, flanked room A along the line of the road (see pl. 13). Both of these spaces were cut down into the bedrock, separated by a spur of un-cut bedrock, **9**. There was no trace of constructed walls, although we do not know anything the destruction deposits in these two rooms. Traces of compacted earth occurring over the cut bedrock may represent contemporary surfaces (**5** and **8**). A gap in the wall **508** may represent a door between rooms A and B: this hypothesis is supported several rocks placed outside it, which may represent steps between one and the other.

On the other side of the road a diagonal wall, built over bedrock, seems to form part of this complex (**510**). This was interrupted for the passage of a ramp (**11**), of very similar cobbled construction, which ran up the side of the second building, Building II. This building consisted of two long rooms, A and B, with four pier-bases, which may represent a small porch. Room A was built against the podium of the Capitoline temple, with a door on its northeast side leading out between the four blocks of the 'porch'. There was no floor visible in this room, which was cut below the temple podium into very irregular bedrock: again, we may suggest that it was floored with wooden planks (see pl. 14).

Like room A, room B was partially cut down into bedrock, but here the bedrock was carefully leveled off, and the floor made up with earth and stones covered by a smooth plaster floor. The door was on the northeast side, in the same position as that of room A, and from it a cobbled floor surface ran along the northern wall. Although the plaster floor had disappeared by 1990, under it the bedrock was punctuated by two north-south lines of stake-holes, 1.5 meters apart (pl. 33).

The complex thus consists of two long rooms, the upper probably floored with wood and the lower with plaster and cobbles. A plausible interpretation of these is a barn and a stable. The raised wooden floor of the upper room would have kept hay or fodder dry, while the thick plaster floor of the lower room, possibly divided by wooden partitions for stalling, would have been fairly easy to keep clean. The cobbled floor running from the door along the north wall would have provided a hard surface for access. This interpretation also allows us to understand why the entrance to the complex was via a ramp rather than a staircase.

The destruction by fire of the granary (there is no mention in the notebooks of a similar destruction layer in Building II) was followed by the construction of a fortification, which completed the Republican circuit of the Arx on its north side. The fact that this wall turned to avoid the north wall of Building II implies that the latter was still standing.

The wall was constructed of large, roughly squared facing blocks, neatly coursed without mortar, with a rubble and earth infill. A small square tower projects from it just west of Temple D, while the old Arx postern gate was blocked off, and a new one constructed 3 meters west of the tower, where the wall crossed the road. West of the postern it ran

parallel to the north wall of Building II, joining the Republican circuit just west of the 'House of the Augustales'. The construction trench was intact within the area of our excavation, and the abundant material from its fill gives a terminus post quem of the sixth century A.D[1]. The remains of a sill and supports for a wooden gate closing the Republican east gate of the Arx may date to the same period.

The absence in the 1951 material of any pottery dating between the late sixth and the tenth centuries suggests that we have not lost much early medieval stratigraphy on the Arx. Six sherds of Forum ware[2] and late tenth century coins - Buttrey 1980 nn. 366 (A.D. 962-973), 367 (A.D. 983-1002) and 368 (A.D. 1056-1106) - suggest some form of occupation in that period, but it is not clear whether this can be certainly connected to the church built to the west of the Capitolium. This is a rectangular building, built parallel to the temple podium. Tombs of two distinct periods were found both inside and outside of it. Inside, the principal tomb was a stone and plaster-lined cist, which appears to project beyond the line of the east wall, which thus may be presumed to have had an apse. The coin dating from the second half of the eleventh century was found in one of the tombs, which gives an approximate chronology for the church. There is no pottery or other material dating to the twelfth century, which may suggest that the Arx was abandoned during this period.

A lime kiln cut into the temple podium seems to suggest a phase in which there was building activity elsewhere on the site, but in which the temple itself was not being occupied. This might coincide with the construction of the cistern on the Eastern Height, where a conspicuously yellow mortar is reminiscent of the yellow limestone with which the cella of the temple was built.

The final activity for which we have evidence on the Arx is the construction of a curtain wall in those places where the Byzantine wall had collapsed. It was built of roughly coursed stone, with much tile and a thick white mortar. It used the late antique fortification as a foundation, but where the relationship can be observed it is generally 50cm. wider than the earlier wall. A tower constructed in the same technique to the west of the postern gate abuts the Byzantine wall, indicating that the latter was still standing in the medieval period. Comparison with other medieval walls from the region, particularly the castles at Stachilagi and Tricosto[3] suggests a date in the thirteenth and fourteenth century, a date which matches the maiolica and coarsewares found among Brown's unstratified material[4].

IV G (FIG. 48 AND PL. 33)
(MICHELLE HOBART, 1992)

Objectives. The investigation of a crude structure of dry stone and the area around it.

Dimensions. An area 6 x 10m. was cleared, next to a wider area measuring 14 x 25 m.

Stratigraphy. The area excavated lies within the insula delimited by streets O and 4: on its northwest side the trench was bordered by a Roman terrace wall, **8**, presumably separating two houses. This formed a right angle with **7**, which again may have been a party wall. No stratigraphy was found associated with this house, and it seems that the whole area was cut away almost to bedrock, in order to provide a level area for cultivation. We thus are unable to discover whether this area lay within the Augustan settlement. Against wall **7** was built a subrectangular structure, **5**, 2.5 x 3.2m., which may be interpreted as a hut or a pen. The walls survive to one course, and are formed of large, crude blocks, similar to those found within the structure in the destruction layer, **2**. One of the corners is not square, and the whole structure is rather haphazard. The floor, **6**, was of compacted beaten earth, with a little pot and bone. No dating evidence was recovered, except for a lead slingshot bullet similar to those found on the Arx. Both its size and the rough stone foundations are similar to the huts in **Forum V** and **Arx VI**, and a medieval date cannot be excluded.

[1] Fentress *et al.* 1991.
[2] Hobart 1990.
[3] Fentress and Wickham 2002; Dyson 1984; see also Andrews 1978.
[4] Fentress *et al.* 1991, 222.

The Eastern Height, EH I-VIII and X C (fig. 49)
(General direction Michelle Hobart)

EH (FIGS. 43 AND 50)
(TERESA CLAY, 1990)

Objectives. Investigation of the circular stone structure recorded by Brown's initial survey was prompted by surface finds of medieval pottery.

Dimensions. A trench measuring 9 x 6m. was placed over roughly a quarter of the structure, so as to include a segment of the city wall.

Stratigraphy. The excavation (pl. 34) did not continue to bedrock. The earliest excavated deposit was a substantial rubble make-up (**9**), onto which was constructed the circular structure (**4**). This consisted of no more than two courses of large, un-worked blocks on both its inner and outer faces, with a core between them of earth and small stones. The structure abutted the city wall, which was partially destroyed down to the level of the walls of the circular structure. The circuit was filled with a fairly uniform deposit of fine, silty material with small stones, which had been tipped in from both sides (**7**,**8**,**3**). The structure thus consisted of a drum-shaped platform about 1.3 – 1.5m. high, with its top roughly level with the surviving height of the city wall on the east. A pronounced slope was visible running up from west to east, but this may have been caused by erosion. No floor surfaces or post-holes were identified. The ground level within the circuit rose about 0.5m. from the upper course towards the center. This suggests that there were originally one or two more courses, which later collapsed or were robbed, leaving the outer part of the fill to erode away. But it is unlikely that the wall ever stood much higher, since little destruction debris was found around it. The structure is dated to the early fourteenth century (or later) by the latest sherds in its fill[5]. The area seems not to have been occupied in the late Roman period, since the residual material from the fill was all Republican or Augustan in date.

EH I (FIGS. 51 AND 52)
(GRETCHEN MEYERS AND BEN LYONS, 1993)

Objectives. **EH I** is one of four trenches excavated in 1993 to establish the limits of the tower on the Eastern Height. It lies on the western side of the mound.

Dimensions. The trench, initially measuring 2 x 5m., was expanded after the discovery of the cistern to 10 x 3m.

Stratigraphy. The excavation was not carried below the destruction layers, so that the earliest stratigraphic unit is the western wall of the tower, **36**. This was preserved to a height of 106.58m. over sea level, and built from a maximum height of 103.25m. (the lowest point visible within the cistern). In a second phase, two structures were built against it. The first of these was a cistern, **37**, measuring 2 x 7m., 3.6m. high. This was constructed with a battered wall of rubble masonry that sloped up against wall **36** (pl. 36). Built against this, but probably contemporary with it, was an inlet basin, **40**, supported on a rubble construction, **38**, and connected to the cistern by a terracotta pipe, which was found blocked with a plug of pumice stone (pls. 37 and 38). In a subsequent phase this inlet basin was buttressed with a roughly triangular wall in rubble masonry with gray mortar and stones, **39**.

At the time of the destruction of the tower the bottom inlet basin was filled with a yellowish sandy silt with small pebbles and no pottery, **34**, presumably a deposit settled out of the water within it. A layer of soft orange sand, **35**, covered the step in front of the manhole leading into the cistern, and seemed to slope up against the buttress below it. Above this layer, a spread of ash, **33**, indicated a fire nearby. All of these layers lay under the destruction levels of the main building. Layer **32** consisted of massive quantities of stone and mortar, 2-3m. deep. It was not fully excavated.

[5] Fentress *et al.*1991, 225.

Above it, a layer of similar stones mixed with a large quantity of leaf mould, **31** suggests the erosion of the same layer from further up the hill.

EH II (FIG. 53)
(MIRANDA RICHARDSON, 1993)

Objectives. Excavated to the west of **EH I**, **EH II** was a long cut to investigate the outer circuit of walls visible down slope from the tower.

Dimensions. The trench measured 10 x 3m. The initial cut was made with a mechanical digger, which removed most of the destruction deposit and tumble from the wall. Thereafter excavation took place by hand.

Stratigraphy. The earliest stratigraphic unit is a ditch, **26**, cut into bedrock and running roughly east-west. U-shaped in profile, the cut is much steeper on the up-hill side (up to 1.5m. deep), and on average 2.8m. wide. It seems to be turning a corner inside the narrow confines of the trench, in order to encircle the summit of the hill. It can be traced outside the trench to the southwest by following visibly cut bedrock, and appears to include the flat surface of the hill outside the castle. Along its inner edge, two clear cuts in bedrock, **32** (fill **33**) and **30** (fill **14**), may represent postholes for a palisade. Another cut, **31**, is less certain. The earliest fill of the ditch was a hard, compact red silt, **28**, deriving from the paleosoil of the hill. This was possibly re-cut (the suggestion is due to the steep angle between it and the next fill), and the subsequent fill, **27**, was far stonier. The rare material in these layers was entirely medieval, suggesting that they accumulated in situ rather than being re-deposited from elsewhere. **24**, the next fill, may have been deliberate, as almost a third of the material was residual Roman. This was thicker, with few stones, and a minimum of bones. Its surface was compacted (**23**), and it may represent the first phase of leveling for the castle. Indeed, it is in this period that we believe that the Roman buildings on the top of the hill were leveled and robbed for the building of the castle (**EH VI**). **22**, a thick layer of earth and stones lying above it, is almost certainly a context produced by building activity, possibly the preparation of the hilltop for the tower. Within it, a large squared block, **25**, is reminiscent of those used to build the circuit wall. The relationship with **19**, which also underlay the wall, is not clear: from one section it appears that **19** is actually cut by the ditch **26**, but this may be illusory, and there is no certainly early material in **19**. It is thus probable that **19** forms part of the same sequence of fills and tips as **22**.

The outer wall of the castle, **15**, was built without a foundation trench on the outside, from a point 100.36m. over sea level (pl. 38 and fig. 54). It was 1m. wide, constructed of large square blocks in a white-gray mortar, forming a straight edge on its northern end, which suggests the presence of a gate in this phase. The position of this gate coincides with that of the earlier road leading up to the summit from the 'Porta Romana' through the ditched defenses (**XC**). **13**, a compaction on top of **22**, may represent contemporary ground surface during this phase, or the surface of the road. **12**, an ashy gray layer lying over **13**, may be interpreted as occupation refuse.

In a second phase the gate was blocked by a new construction, **16**, and wall **15** was partially rebuilt. The construction technique of **16** was less careful: irregularly coursed and roughly faced stones in yellow mortar. Traces of this mortar were found in the layer associated with this reconstruction, **4**/**11**, with a compacted surface. The new wall seems to have been defended by a shallow ditch, **20**, which cuts layer **4** close to the line of the earlier ditch. The ditch was no more than .8 m. deep at this point, and represents more an enhancement of the slope than a real ditch. However, there was probably a new gate to the south, and the ditch may have been terminating at this point. It also closely resembles the shallow ditch excavated in the extension to **EH VI**. This ditch was filled with a fairly homogenous layer of earth, with little pottery, although it included several sherds of maiolica arcaica and was thus certainly later than the end of the twelfth century. Sealing it was a compacted layer of earth, **7**, which provided a flat surface outside the wall, possibly a deliberate berm. This was the last occupation layer associated with the defenses: over it a series of destruction layers (**5**, **6**, **2**) contain large amounts of stones that certainly tumbled from the wall. They are all covered by topsoil, **1**, in which the presence of large stones shows that the wall continued to disintegrate into the modern period.

EH III (FIG. 55)
(TARA BOWEN-BIGGS**,** 1993)

Objectives. **EH III** was one of the four trenches designed to define the limits of the tower. It was situated on the north side of the tower.

Dimensions. The trench measured 2 x 2m., and in practice its excavation consisted in the cleaning of the visible walls.

Stratigraphy. The earliest wall, **1**, was built of limestone blocks in a white-gray mortar, neatly coursed and faced on the outer face: the inner face was not visible within the excavation. The core of the wall contained small stones, pebbles, and some Roman tile, and the whole was preserved to a height of 106.60m. above sea level (roughly the same height as that observed in **EH I**). This was buttressed by a second wall, 2.75m. wide, whose construction was slightly more regular than that of **1** (pl. 39). A slight outward curve towards the eastern edge of the trench may suggest some structural feature: comparison with similar towers at Tuscania suggests that the door to the tower would have been found on an upper story, and it may be that the buttressing wall was thickened at this point to support an entrance platform or ladder seating.

There was little destruction rubble in this area, and it seems that the whole of the tower collapsed in another direction, probably to the west and south.

EH IV (FIG. 56)
(BEN LYONS, 1993)

Objectives. **EH IV**, on the east side of the Eastern Height, was one of four trenches intended to delimit the tower.

Dimensions. The trench measured 1 x 5m., and was excavated down to the crests of the walls.

Stratigraphy. Two walls were present in the trench, but the confined space made it impossible to excavate low enough to establish the relationship between them. The westernmost, **14**, was well faced with limestone blocks in a white mortar, 0.8m. wide. This is less substantial than the walls of the tower, and may represent a subsidiary building, although the mortar is very similar. The wall was apparently destroyed down to 105.64m. above sea level, for **13**, of stones in a yellow mortar, seems to represent a rebuilding - unless, of course, **14** was never more than a courtyard wall. Outside it, 1 meter away, another wall, **15**, runs at a slight angle to it. This was far more roughly built of limestone in a gray mortar, 0.7 m. wide, with only the western face surviving. It may be interpreted as part of a house or barn within the cassero walls.

EH V (FIG. 57)
(MIRANDA RICHARDSON, 1993)

Objectives. This small trench was designed to delimit the southern edge of the tower.

Dimensions. The trench measured 0.8 x 2.8m.

Stratigraphy. Because of the massive amount of tumble and tree roots, excavation was only carried out down to the crest of the wall. This was found under 1m. of tumble, and only its outer face was present within the limits of the excavation. In all ways similar to the tower walls in **EH I** and **III**, it consisted of a face of limestone blocks with and infill of small stones and some tile in a white-gray mortar. The walls were preserved to a height of 105.97m. above sea level. This confirms the evidence from inside the cistern, that its vault was not preserved at the southeast corner of the tower, as the top of the vault on the western edge stood at 106.58m. above sea level.

EH VI (FIG. 12 AND 37)
(NICHOLAS CHURCHILL, 1993; ELIZABETH FENTRESS, 1994; JOANNA HAMBLY AND ELISABETTA GLIOZZI, 1995)

Objectives. The trench was designed to investigate what appeared to be a leveled area of bedrock lying south of the summit of the hill and north of the 'trébuchet base'. This area appeared to have been deliberately leveled, possibly at the same time as the creation of the ditched defenses. The discovery of a sunken-floored building led us to reopen the trench in May of 1994, for a brief campaign to finish the excavation of the lower levels of the hut. In July 1995 the trench was greatly enlarged, to include as much as possible of the leveled platform in the hopes of better understanding the early medieval features on the hill. The discovery of a Republican temple in the center of the platform led to a further enlargement to the northwest, in order to understand the context of the temple. A final extension (known as the northeast extension, and written up separately below) linked **EH VI** to the outer wall of the castle. Bedrock was reached in most of the upper trench and in the northeast extension, but time did not permit the complete excavation of a second sunken-floored building northwest of the temple.

Dimensions. The trench was irregular in shape, initially a rectangle of 10 x 11m. with a corner missing. It was extended in 1995 to 27.5 x 20m., with an extension to the east of 11 x 13m.

Stratigraphy. Cutting and erosion had destroyed much of the stratigraphy on the top of the hill. The earliest activity appears to have been the laying out of street R, which runs from southwest to northeast and probably continued across the center of the site. Our evidence for it is slight, however. The façade of the temple is exactly aligned with its northwest edge. A second road, **15**, seems to have run along the northeast edge of the trench. It has a clear corner with R, is marked on both sides by small stubs of walls, to the northeast by **184**, at the edge of the trench, and to the southwest by **185**. There are no traces of paving stones on this road. To the north, it has a smooth beaten earth surface with some slight cobbling, **5**, while in many places even this surface is missing, and the flattened bedrock reveals the straight cuts of the metal tools used to level it. On street R, however, medieval robbing seems to follow the line of the road and might be related to the removal of paving stones during the construction of the twelfth century castle. However, it seems more likely that these roads were used only for a brief period prior to the construction of the temple and its sanctuary.

For the sanctuary itself our evidence is sadly scarce. The whole top of the hill appears to have been leveled off to create an open space measuring perhaps 29.5m. (100 Roman feet) by something over 31m. The temple was sited in the middle of this space, its center point exactly 14.78 meters (or 50 roman feet) from the inner face of wall **184**, which may have been transformed into the northeast sanctuary wall at this point.

A construction trench for the temple walls was cut into bedrock (**232**, filled by **231**). To the northwest, where the ground began to slope away steeply, the bedrock was simply leveled to provide a solid foundation. In one case, toward the northern corner of the temple, the bedrock was shaped into a foundation block taking the same form as the polygonal masonry. On the southwest façade of the temple the construction trench cut into the line of the road, and the construction fills (**227**, **228**, **230**) spread out onto the road itself. These contained frequent spalls and occasional tiny fragments of pottery and tile. The eastern corner of the temple is marked by a circular posthole, 60cm. wide (**250**). If it is not in fact medieval, this might be related to the scaffolding that served to help lift the large blocks of the podium in place.

From the two preserved courses on the northwest side, **234**, the masonry technique used in the construction of the temple appears directly comparable to that of temple D on the Arx. The podium was filled with yellow earth containing plentiful fragments of tile and wall plaster (**112, 244**), which suggests that the fill derived from earlier buildings in the immediate area of the temple. These might be represented by the stub wall along the line of the cardo, **185**. As nothing else remains of this building, we may presume it was completely removed during the clearance of the sanctuary area. The podium fills continued down to bedrock, 60cm. below the preserved surface, which again suggests that the clearance of any earlier structures on top of the hill was very thorough. The robbing of the structure prevents us from knowing

anything about the plan of the temple except its dimensions, for the line of the cella wall was certainly marked out onto the surface of the podium, rather than within its foundations.

The sanctuary wall, **184**, is partially visible on its northeast and northwest sides. On the northeast side the wall, **184**, was 60cm. wide and ran along the line of the earlier road, its inner edge flush with the edge of the road. Its outer edge is marked by a steep cut, 60cm. deep. This cuts down to leveled bedrock outside, which may suggest that the earlier road was moved to the exterior of the sanctuary. In fact, a Roman house wall lies 6.5 meters from the exterior of the sanctuary, close to the standard width for roads at Cosa (for this house see below, NE extension). The wall was apparently built in dry stone, but only one course is partially visible under the northeast section of the trench. The northwest sanctuary wall, was certainly of dry stone, and was built along the line of the rear wall of the temple, which it abuts. It is clearest at the north corner of the temple, while its collapse is visible two meters to the northeast (**186**).

No trace was found of the other two walls, which were certainly not within the limits of the trench. We can presume that the sanctuary was entered from street R. Rectangular cuts in bedrock, and a single upright stone mortared into place, suggest that an altar was found in front of the temple, **190**. Like that of temple D, it would have occupied the apex of an equilateral triangle whose base was formed by the facade. However, this structure was almost entirely robbed, and we can say little more about it.

Somewhat later than the construction of the temple, but probably during its life, a square building was constructed on its southwest side. The construction trench, **225**, of this building's northeast wall, **226**, cuts **227**, a surface associated with the temple. Its rear wall, **195**, runs parallel to the northwest sanctuary wall, while its front wall apparently followed the line of the facade of the temple, opening onto street R. Almost nothing is left of this building except what appears to be collapsed walling in pisé de terre, which covers most of its interior, **194**. This was not excavated for want of time, and it is extremely difficult to interpret. The presence of a house within the sanctuary is paralleled by the 'House of the Augustales' excavated by Russell Scott[6], but there is nothing particularly domestic about the structure on the Eastern Height.

Over the fills of the construction trenches of the temple and the square building to the southwest, compacted beige earth (**182**) seems to mark the use of the sanctuary. Directly on top of this were found the destruction layers, characterized by a dense accumulation of cream-colored wall plaster. These were thickest to the rear of the temple (**212, 251, 163, 247, 248**), but they were also present along the northeast side, where a thick layer of fallen plaster accumulated against the wall (**182**). Unless we assume that the polygonal masonry of the podium was obscured by plaster, it seems likely that this plaster covered the walls of the cella, which would explain its absence at the front of the building. No fallen masonry or column drums were found around the temple, and we must assume that all except the lowest course of blocks was reused for the construction of the castle.

Dating. Neither the sanctuary nor the temple podium are well dated by archaeological material. Within the podium fills, the ceramic materials were largely unidentifiable, with the single exception of a Greco-Italic amphora dated rather loosely to the second century B.C. The terracottas deriving from the temple give us a better indication of the date of its construction, which we may put in the first half of the second century B.C. (part IV: p. 217ff.). The stubs of earlier walls may indicate that the area had initially been reserved for housing, with the temple being constructed somewhat after 19 B.C., but these are too uncertain to place much weight on. We have no evidence for the construction of the building to the west of the temple although it is probably Republican as well. The scarcity of Italian sigillata in the whole of the Eastern Height (only three residual sherds were found) and the exiguous quantities of African Red Slip wares (two fragments of Hayes form 3 were found in medieval layers) suggests that the hilltop was not reoccupied after the abandonment of the town of Cosa around 70 B.C.

MEDIEVAL STRUCTURES. Again, we are not helped by the dearth of clear stratigraphy on the hilltop. To the northeast of the ruins of the temple the most significant later feature is a rectangular cut in bedrock, 50-70cm. deep, and running east-west (**14**). This lay partially over the line of the road, and measured 2.5 x 7.5m. At the bottom of the cut was a layer of light brown clay, **17**, compacted on the surface and 20-50cm. thick, which fills hollows in bedrock. The eastern end of the feature is steeply cut, with apparent ledges on either side measuring 15cm. wide. In the western half

[6] Pers. comm., unpublished excavations.

of the cut, where the natural bedrock is lower, the sides are packed with small stones in clay. Only at the eastern end are these stones regular enough to suggest a wall foundation, but it is probable that all the packing served the same function. This is interpreted as a sunken-floored hut, Building 1 (pl. 40).

The cut bedrock at the bottom of the structure is extremely irregular, with one massive circular depression in the center. The bedrock could not have provided a usable floor surface, and, unless the irregular layer **17** can be interpreted as a floor, we must assume that the whole was planked over with timber, supported on the ledges and packed foundations.

Outside the building and at its NE, SE and SW corners, were a number of postholes whose relationship to the structure is not entirely clear, but which may have supported or reinforced a timber roof (**6**, **7**, **23**, **28**, **29**, **33**, and **34**). These postholes were distinguished from natural hollows in the bedrock by the presence of apparently anthropogenic fills within them, as well as their more regular form. One, **33**, seems to have been encased in the layer of packing rather than cut into the stone outside. The destruction layer, **12**, contained a number of large stones, which suggests that the building was walled, at least in part, with stones rather than with wood or wattle. The circular hole in the center could be interpreted as a posthole for a large vertical timber, which may have supported rafters leaning in from the external walls.

A second structure of the same type, Building 2, was found to the west of the temple, running parallel to its rear wall. This was a subrectangular structure, 3.7m. wide, defined by irregular cuts in bedrock (see pl. 24). The hut was not fully excavated, as it ran under the section, but its minimum length was 6m. The cut is roughly 40cm. deep, and is ringed by postholes, suggesting timber walling. It is filled by large stones with earth on top of them: again, it is something of a quandary whether the flooring was of wood, or whether the rough compaction above, **157**, can be interpreted as a beaten earth surface. A semi-circular group of stones, **162**, might mark the position of a hearth at the level of **157**. Access to the structure was apparently from the south, along a path, **213**.

TIMBER BUILDINGS. The destruction of these two sunken-floored buildings seems to have been very thorough, with the heavy stones that made up their walls pushed into the hollows, and the whole filled with earth. Over the western hut a layer of relatively clean earth, **167**, accumulated, covered by colluvial material, **174** and **151**. Over the eastern building a compacted layer of earth, **13**, must represent a further occupation of the hilltop. This surface may be associated with a timber structure, Building 3, whose presence is suggested by a double line of postholes to the southeast (pl. 41). These are fairly irregular, but seem just large enough to have supported building timbers. The orientation of the structure is different from that of the sunken-floored building, and almost directly adjacent to it; indeed posthole **10** almost touches **28**, which was tentatively interpreted as a slot for a roof-timber in the earlier building. Thus although the possibility that the two were contemporary cannot be ruled out, it seems more probable that the posthole structure was constructed after the first building had been destroyed. It would have measured 6 x 2m., and was lacking anything that might have been interpreted as contemporary surfaces, with the possible exception of the trample that overlaid the destruction of the sunken-floored building.

A second rectangular timber building, Building 4, lies 4.5 meters southeast of the first. Its sides are marked by a double row of very irregular postholes. A square depression 30cm. deep is cut into the bedrock at its southwestern end, clearly marked by four corner postholes (pl. 42). How this is to be interpreted is not entirely clear: perhaps there was a functional distinction between the two ends of the building, which measured 7.5 x 3m. overall. To the west of this building a thin surface, **171**, may represent its occupation.

A fifth building on top of the temple is very different from the others, being regularly constructed of stone walls. Two of these were preserved over the temple, the first, **235**, running along the line of the façade of the temple, the second, **236**, across the middle. A posthole cutting the podium fill, **132**, may represent a support for the roof. The side walls must have used the temple walls as foundations, but nothing is preserved of these. Outside the structure, along the line of the Roman road, a beaten earth surface, **172**, seems to be associated with the life of the building.

The southwestern half of the trench yielded no certain evidence for occupation, although five clear postholes might suggest further timber buildings. It is probable that all of these structures, with the possible exception of Building 5, were abandoned at the time of the construction of the castle, a moment which seems to coincide with the robbing of all surviving walls (**111**). In the area of the Roman road a thin, compacted layer, **4**, is almost impossible to date. Lying over this, **2** presented a roughly cobbled surface, well compacted. The presence of archaic maiolica in the fill suggests that it is contemporary with the second phase of the castle.

Over the whole of the area a thin layer of brown-brown silt and sand, **101**, represents modern debris and humus, possibly dating from the use of the area for a radio tower during the Second World War.

EH VI, NORTHEAST EXTENSION
(NANCY PROCTOR AND DANIEL ROSCHINOTTI 1995)

Objectives. The extension was designed to link **EH VI** to the castle proper, and to investigate a clear cut in the rock between the sanctuary and the castle wall.

Dimensions. The trench measured 2 x 11m., terminating to the northeast on top of the outer wall of the castle. Excavation was completed down to Roman levels.

Stratigraphy. The earliest feature in the trench was an almost vertical cut in bedrock, 60cm. deep (**210**). This runs parallel to the Roman alignment, 2.95 meters northeast of wall **6**, and fairly clearly in relationship to it (it is almost precisely 10 Roman feet away). The cut delimits the leveled area of the sanctuary. Outside of this area the bedrock was also leveled, and seems to have been covered by a deposit of find gray earth (**209**). This may represent a road, for it covers an area exactly 6.2m. wide, which is a fairly standard width for the roads of Cosa (Brown 1951:27).

On the northeast side of the possible road was constructed a house, whose south corner is visible under the medieval wall (**218**). This was built of dry stone, faced on the outside. Within the building was found a coarse black and white mosaic pavement (**219**) with a mortar and tile preparation (**201**). The external surface contemporary with the building was of earth with a very compacted surface (**211**). We have no good evidence for the date of the structure, as no pottery was recovered from these levels. Its destruction is marked by **200**, an orange-clay layer which seems to consist of decomposed pisé and which covers the walls and surfaces. There is no further trace of occupation in the Roman period, and the first medieval activity in the trench is the construction of the outer wall of the castle. This was built of roughly coursed rubble masonry, with much whitish-gray mortar. It thus resembles the second phase of the outer walls as seen in **EH II**, rather than the first, of which there is no trace in this trench. Somewhat later (although there is no stratigraphic build-up between the two) the defenses were strengthened by the construction of a berm and the digging of a ditch. The berm consisted of a single course of blocks certainly taken from the polygonal walls of the town (**203**), laid with their faces outward on top of a rubble preparation layer (**223**) (see pl. 30). Behind this revetment three layers of earth and rubble were deposited (**180**, **179**, **177**), compacted on the surface. In front of the wall the Roman layers were cut away (**220**) down to bedrock parallel to the Roman cut **210**. No effort seems to have been made to cut the ditch any deeper, so that it was only 70cm. deep overall, and around 5m. wide. If the height of the berm is included, the new defenses constituted an obstacle of around 1.50m. in front of the main external wall of the castle.

The latest layers in the trench (**178**, **229**) consisted of the tumble from the tower and the castle wall, containing, like the corresponding layers in **EH I**, far more stones than earth. These fell directly onto the bedrock at the bottom of the ditch, which suggests that very little time intervened between the cutting of the ditch and the destruction of the castle.

Dating. The construction technique of the berm, which uses a single course of stones removed from the polygonal walls to revet an earthen bank, is very similar to that of the catapult base excavated in **EH** in 1990 and it seems reasonable to assume that it had a very similar date, perhaps just before the fall of the castle in 1328.

EH VII: CISTERN
(MICHELLE HOBART, 1993)

Objectives. The 1973 plan shows a small, probably Roman, cistern on the Eastern Height, north of the castle. It was decided to empty it in order to date its abandonment.

Dimensions. The dimensions of the trench, 2.40 x 2.60 m., followed those of the cistern.

Stratigraphy. The cistern is roughly square, and lined with hydraulic cement. It is not at all clear from its construction whether it was Roman or Medieval in date. Although the hydraulic cement appears Roman, the roof, a shallow gable poured over thin beams whose holes are still visible in the walls, is not paralleled elsewhere on the site. A terracotta pipe on the southern side provided the inlet for water, while an opening 80cm. square in the eastern corner provided access.

All of the fills within the cistern were medieval, and seems to date to the last occupation of the hilltop. The lowest, **5**, is a context given to a number of coins found adhering to the plaster (medieval coins catalogue 10-36), which were presumably thrown in when there was still water in the cistern. Covering these, **4** was of very fine light-brown soil with much plaster dust. Above it, **3** is very similar, but contains much material from the collapse of the eastern corner: both layers are thickest in this area. However, there seems to be no real grounds for separating the two layers: both contain coins from the same group, as well as joining sherds of maiolica.

These contemporary fills, and the floor of the cistern itself, were cut by a circular hole in the middle of the cistern, presumably made by a treasure hunter in the recent past. Contexts **1** and **2** represent the spoil from this activity, but there does not seem to have been much contamination of the material.

EH VIII
(TOM DAWSON, 1995)

Objectives. **EH VIII** was started outside the city wall at a point just below the castle in order to find a suitable deposit of refuse from the occupation of the castle and thereby increase our environmental and ceramic evidence.

Dimensions. The trench measured 2 x 5m.

Stratigraphy. After the removal of topsoil the excavators were confronted with a massive deposit of large stones, deriving, in all probability, from the collapse of the Roman city wall, which was probably destroyed at this point during the destruction of the city at the hands of the Sienese in 1328. The presence of a certain amount of maiolica in this layer supports this hypothesis. However, it was not possible to continue the excavation because of the impossibility of removing or digging around the largest of the boulders.

X C (FIG. 58)
(TOM DAWSON AND MICHELLE HOBART, 1995)

Objectives. The trench was excavated to the southeast of the northeast gate. The aim was to understand the relationship between the pronounced scarp, a visible medieval wall, and the rest of the early-medieval defensive system. The northwest-southeast arm was hand-excavated to the depth of one meter, and thereafter excavated by machine, with the sections cleaned, studied and drawn. The northeast-southwest arm was then begun, but in the event only hillwash was removed, and the results were inconclusive.

Dimensions. The trench was L-shaped, running northwest-southeast, then turning at a right angle towards the southwest. The first arm measured 14 x 3m., the second 7 x 2m.

Stratigraphy. Over a layer of the red, silty natural soil found over bedrock everywhere on the hill of Cosa (**13**), the earliest stratigraphy in the trench consisted of series of entirely clean layers leveling up the slope of the bedrock. The predominant matrix was of a green clay, similar to that found in the swampland below the hill around the lagoon and the Lago di Burano (**10**, **12**, **18**). In this matrix were lenses of other material, also deriving from local geological formations: a pure white calcareous silt (**9**, **11**, **17**, **19**), and patches of the red silt of the natural loëss (**16**). The way these layers lay strongly suggested that they were redeposited, and although no dating material was found in them, they appear to fill the hollow in the bedrock between the sinkhole and the city walls. This would suggest that their deposition was contemporary with the construction of the city walls, whose outer face at this point is in fact much lower than its inner face.

Two Roman walls were visible. The construction trench for wall **26** was apparently cut into this series of fills (some doubt remains as we were unable to excavate so close to the wall), with a probable return up-slope, **25**. The truncation of the stratigraphy and incompleteness of the excavation upslope from wall **26** leaves us with some uncertainty as to the date of these walls, but their construction technique, of dry stone, roughly faced blocks, and their alignment with the Roman town plan, strongly imply that they are in fact Republican, perhaps dating to the early second century. An alternative hypothesis, that they constitute a gate bastion contemporary with the defensive scarp, was rejected for want of better evidence. Wall **26** itself is sharply canted outward, due probably to colluvial pressure from above. Although the two walls form a clear corner, and therefore might indicate an angle in the street grid, the fact that the stratigraphy to the northwest of them has been cut away does not allow us to come to any conclusions.

No contemporary stratigraphy was associated with these walls to the northwest. There, a cut slopes steeply away from and parallel to **26** (pl. 43). The cut seems to have enhanced the existing slope, creating a scarp that climbs 2.40m. in 2.80 meters, with a gradient of almost 1:1. From the top of the Roman wall the slope is more gentle, continuing uphill with a gradient of 1.7:5. Although an animal burrow (**27**, fill **14**) has confused the section, it is clear that the stratigraphy associated with the Roman wall is missing at this point, while the truncation of layers **9**-**12** leaves no doubt that they were cut away previous to the creation of the burrow.

In conjunction with the scarp created by the cut the Roman city wall was cut away, leaving a gap ca. 10m wide in the Roman defenses (see pl. 27). This can only be explained by a desire to avoid an overhead passage past the scarp, which would have enabled attackers to mount the wall in the vicinity of the northeast gate and engage the defenders from above. A similar cut in the Roman walls is visible at the other end of the circuit, below the catapult base.

To the southwest of the trench the scarp stops abruptly, in conjunction with what appears to have been a road leading up from the northeast gate towards the castle. This is marked by a long wall, **24**, running in a straight line over 19 meters in the direction of the castle at an angle of around 10 degrees to the Roman alignment. It is built of large blocks, dry-laid, which seem to derive from the polygonal masonry of the Roman city wall. Although roughly faced on its southwest side, it does not seem to be an adequate foundation for a wall of any height. All late medieval walls at Cosa were mortared, with the exception of the berm wall (**EH VI**, NE ext, **203**) and the catapult base (**EH**). The wall terminates at the edge of the scarp, and may have been constructed at the same time, possibly with the blocks removed from the city wall to create the gap. Its function is in no way clear: no constructions were observed inside it, and it may simply have supported a low cultivation terrace, forming a boundary between it and the road.

Dating for these features, the scarp, the gap in the wall, and the road, is uncertain. It is, however, likely that they are contemporary with the double ditch and bank in **Forum II**. The scarp is directly aligned with the lower ditch, and seems to form part of a single circuit, with a main gate just southwest of the trench and a postern at **Forum II**. It should be noted that the path leading across the ditches in **Forum II** was also marked by a wall on one side.

The base of the cut was filled by a clean, silty layer, **15**, covered by a thicker layer of clean hillwash, **8**. Over this a thick layer, **7**, contained much construction material (largely Roman), and seems to suggest a period of cutting or destruction up-slope. We may perhaps relate this layer to the construction of the castle, when much robbing of the Roman structures on the hill took place: a similar layer was found as the top fill of the early ditch in **EH II**. Over layer **7** clean layers of colluvial material (**6**, **3**, **21-23**) bring the slope up to a 'natural' gradient of 1:6, and are probably post-medieval in date.

Trenches in the Area of the Forum, and IX D North (Fig. 59)
(General Direction: Elizabeth Fentress)

FORUM I
(TERESA CLAY, 1991)

Objectives. **Forum I** was excavated towards the middle of the forum on the southeast side of the 'short axis trench' excavated in 1973. It was intended to recover the stratigraphy of the open area of forum and to establish whether there was any late occupation there.

Dimensions. The trench measured 5 x 8m., and lay exactly 9 meters from the southwest kerb of the forum.

Stratigraphy. Hollows in bedrock were filled by the red silt characteristic of the hill. Above this, **6** probably represents the Augustan surface of the forum. It consisted of very compact brown-brown loam, with mortar flecks and a few limestone pebbles. It remained unexcavated, so no precise date is available. Over it, and cut slightly into it, was a linear feature of pebbles (**7**) running diagonally across the trench (pl. 44). This was not excavated either, and a doubt remains as to whether it represents a path running diagonally across the forum, or whether it is the fill of a deep cut, visible in section, which cut through **6**. This might represent some sort of drainage, or, possibly, a drain that was later filled in and surfaced with the pebbles of **7**. No certainty is possible, so the question must remain open.

Above these surfaces a relatively thick layer of brown-brown sandy loam, **5**, probably represents the makeup for a compact beaten earth surface, **4**. A fragment of ARS form Hayes 88 dates this surface to the sixth century. Above it, a spread of rubble with a compacted surface (**3**, **2**) may represent the use of this surface or, more likely, the surface of the road that ran across the forum from the ramp in the Curia. This was covered by topsoil, **1**, which suggests that no further activity took place in the forum. Two coins, the first dated to the late fourth –fifth century, and the second to the late fifth or early sixth century, were found in this layer (catalogue nn. 82 and 83).

FORUM II AND III
(ELIZABETH FENTRESS, 1991 AND 1992)

Objectives. The trenches, to the east of temple B, were aimed at investigating an area of walls whose orientation was skew to the Roman alignment, suggesting that they might be medieval, and at understanding their relationship with the church excavated on temple B in 1953. A further objective was the understanding of the Roman plan of this area, which would have completed the line of public buildings on the northeast side of the forum.

Dimensions. The northwestern limit was the trench excavated around temple B in 1953, which cut through most of the stratigraphy in this sector. The trench followed the orientation of the Republican grid, running from temple B to a wall (**16**) on the southwest edge of street Q, 22.5 meters from temple B. The trench was 10m. wide, narrowing to 5m. near temple B to avoid a tree and some large blocks. An 'isolation trench', 5m. wide at the top, with a sloping section, had been dug around the temple.

In 1992 the trench was extended to the southeast, with a further, triangular extension to recover the whole section of the ditch revealed in the east corner. Once it was established that the medieval cemetery covered almost the whole trench, it was decided to limit its excavation to the area close to the temple, and an area to the southeast of wall **11** was left unexcavated at the top layers of the cemetery. In 1992 a second trench, **Forum III**, was opened parallel to **Forum II** to the northeast, leaving a 3m. baulk between them for a barrow run. The trench measured 4 x 10m., and was excavated only to the latest levels. It will be discussed with **Forum II**. All context numbers are assumed to be from **Forum II** unless **Forum III** is specified. A small sondage, measuring 2 x 2.5 m., was excavated in 1993 under the cemetery at the edge of Richardson's 1953 excavations to connect the Byzantine and later sequence to the construction layers of temple B.

Stratigraphic sequence

THE ROMAN PERIOD. A thin layer of red earth over bedrock, excavated in the sondage next to temple B (**68**) contained charcoal flecks, and two sherds of apparently archaic Etruscan pottery. As this was only excavated in the 1993 sondage, we cannot be sure whether it was associated with occupation of the hilltop or with the cemetery for which there is evidence elsewhere at Cosa.

The earliest structure in the area of the trench is the Roman wall **16**, and its two returns toward the northwest, **35** and **63**. **16** runs along the northwest side of street Q. It is probable that both of the returns marked the corners of the building, giving it an overall width of 8m., comparable to houses elsewhere on the site. An alleyway ran between it and the 'carcer'. A probable step in this alley, **17**, links the corner of the building to the carcer, abutting both buildings. The rest of the building was entirely cut away prior to the construction of temple B (**69**). A small patch of tile flooring,

covered by rubble destruction debris remained against the wall (**19**). This lay at the same absolute height as the floor of the carcer, and a cut sloped down from this toward temple B, cutting away the earlier stratigraphy and, in some cases, the bedrock. Near temple B, the 'archaic' deposit **68** was covered with a thin layer of earth with a few Republican sherds (**67**), and then a thicker layer (**66**) filled with limestone spalls from the shaping of the blocks for temple B. This was also recorded by Richardson in 1953, as level III. **16**, or what remained of it, then served as a kerb for street Q. It is uncertain how high it stood: it is preserved to 80cm. over the Roman cut, and it may have been considerably higher, serving as a sort of temenos wall to delimit the space to the southeast of temple B. Later disturbances prevent us from knowing anything about the space between wall **16** and temple B during the Roman period. There is a slight trace of a midden deposit over the construction layer (**21**) but this is largely 2nd c. A.D., and it may be presumed that the area was grassed or otherwise planted during the Republican period.

The only Roman layers recorded in the trench lay to the southeast of wall **16**, over the surface of street Q. These consisted of midden deposits, relatively rich in pottery, piled up against the face of the wall. The earliest of these reached by the excavation, **61** and **62**, contained pottery of the first half of the 1st c. A.D., while the later deposits, **55**, **54**, and **42**, contained pottery dating between A.D. 80 and 130. This suggests that the road was no longer kept clean from the beginning of the first century: indeed, it appears to lie outside the limit of the Augustan recolonization. After this time the pottery sequence stops, and we have no way of dating precisely the two tombs found cutting the middens. One of these (**58**, **59**) is a small cist built against the southeast side of wall **16**. It contained disarticulated human bone, and may represent a reburial of a tomb disturbed by some activity, or, possibly, an incineration. The other, **60**, **64**, was a 'tomba a cappuccina', covered by pantiles. This was observed for a short distance only, as it ran under the section, but it clearly cut the midden deposits. It may be interpreted as a burial dating some time between the third and the sixth centuries, but no further precision is possible. The midden was truncated by the digging of the medieval ditch.

THE BYZANTINE PERIOD. Over the construction deposit next to the temple was found a wall, **11**, which had previously been observed by Richardson at the east corner of the temple. Although the construction trench for this wall had presumably been cut from a higher level, the stratigraphy related to it had been almost entirely cut away by the medieval cemetery, so that it appeared simply to sit on the layer of spalls. It was constructed of stone and white mortar, and measured 47 cm. across. Although preserved to a height of no more than 45 cm., it must have been considerably higher, as a well-preserved collapse (**9**) ran from the wall for over two meters and beyond under the southwest section of the trench. Thus it stood, at a minimum, to shoulder height. It could be followed from a point some four meters to the northeast of temple B, running parallel to it. It then swung around the east corner of the temple, and ran south, for 10 meters, turning southeast towards the eastern corner of the forum. Cut by a later ditch, its traces were lost in the southeast end of the trench, but it may have run towards the southeast gate.

The irregular line of this wall suggests that it formed the edge of a road, running from a point to the rear of the Curia (part I: p. 78ff.) towards the southeast gate and the port. Traces of compaction over the construction deposit and **21** may be related to this road, but we cannot be certain. Although no dating evidence for it was present in this trench, the wall's stratigraphic position puts it after the construction of temple B and before the medieval cemetery, which cuts both the wall and its collapse. It seems reasonable to associate it with the sixth century ramp that runs up through the Curia towards the forum.

THE MEDIEVAL PERIOD. The cemetery (**12**) has already been discussed (part I: p. 99ff.). Over 70cm. deep within the excavated area of the trench, it was probably even deeper next to temple B, where Richardson recovered some 80 bodies. The continuous cutting of tombs destroyed any intervening stratigraphy in this area. Towards the southeast end of the trench, however, where the graves were sparser and individual cuts could be recorded, they cut into a fairly clean earth just above bedrock. The tombs in this area were covered by a thin layer of hillwash, **14**, containing only residual material, which suggests that this area of the cemetery was abandoned before the next occupation.

The hillwash, and the south-easternmost tomb (Bu **60**), were cut by an irregular shallow ditch, running across the trench from northeast to southwest (**38**: pl. 45 and fig. 60). This was on average 3m. wide, although it narrowed to 2m. at its northeast end. U-shaped in profile, it was never deeper than 1.20m. The earth from its cut was piled up on its southeast side, against the Roman wall **16**, to form a low bank (**24**). On this was constructed **18**, a small square foundation, 25 x 2.8m., which incorporated **16** and its return, **63** (see pl. 25). The foundation was preserved for one course only, neatly faced, with no mortar and an inner fill of rubble and earth, the rubble possibly deriving from **16**.

This construction is probably to be related to two walls that were excavated in **Forum III** (**Forum III 5** and **3**: pl. 46). Preserved for one course only, these lay at right angles to each other and parallel to the square foundation. On the southwest side of wall **5** was a compact surface of beaten earth and small stones, **12**.

A final element in this complex is a second ditch, **50** (fig. 61 and pl. 47), in the eastern corner of the excavation. This was considerably larger than **38**, measuring at least 6m. across, with a U-shaped profile a minimum of 3m. deep. Again, the earth from this ditch appears to have been thrown towards its uphill, or eastern side, emphasizing the natural slope. The ditch, and the bank to its west, (**65**) were finished with a layer of fine clay (**56**), traces of which were also present in the outer ditch (**41**). A single posthole was found cutting this layer, (**52**) with the suggestion of a stone packing. It may suggest a palisade, but in the absence of a second posthole the question must remain open. The ditch seems to reappear on the other side of trench **Forum III**, wall **5**: the cut is visible on pl. 46.

On plan, these five elements – the two ditches, the square foundation, and the two banks – seem to comprise a complex fortification, although the baulk between the two trenches leaves certain aspects of it in doubt. The outer ditch is missing in **Forum III**, and thus must have come to an end between the two trenches: indeed, a large lump of bedrock in the middle to the trench seems to signify that it is running out. In **Forum III**, the line of its outer edge is taken by **III 6**, a wall which must have had the same, rather minimal, defensive function. The inner ditch, **50**, is also interrupted between the two trenches, although it continues on the other side of the wall in **Forum III**, **5**. This wall must thus be interpreted as delimiting a narrow causeway, whose surface would be constituted by **12**. We do not know whether a wall parallel to **5** lies under the baulk, but this seems likely. It is thus probable that there is an entrance through the fortification at this point, and that the square foundation **18** can be interpreted as a guard post. The absence of mortar and the very small amount of rubble found in its destruction layer **44** suggests that it was not stone-built to a higher level, so a wooden construction seems the only possibility.

We do not know how long these defenses were active. In the outer ditch was found what may have been a deliberate burial, **57**, although no cut was observed. The skeleton (the body was largely under the southwest baulk) lay along the line of the ditch, and the absence of a cut may suggest that it was simply left where it fell. It was covered by one of a series of fills, (**40**, **39**, **29=22**) which are probably contemporary with those of the inner ditch (**51**, **Forum III 7**). These fills were relatively clean, of black, powdery earth, with some pottery and fire-cracked rocks. The lowest, **40**, contained much red earth, and probably slipped in naturally from the sides of the ditch. At some point after the ditches had almost entirely silted up they were re-cut (**37** recuts **38**, **48** and **Forum III 10** re-cut **50**), although the profiles of the new ditches were even shallower than before. The fills of the re-cut ditches were much richer in domestic debris (**33**, **47**, **45** and **Forum III 6**, **2**) than the earlier fills, which may suggest a period of more intense occupation within the defenses of the settlement. The final abandonment of the defenses is marked by the construction of a small hut (fig. 62) that covers the line of the outer ditch. This consisted of a rubble make-up, **13**, punctuated by six postholes, forming a square with four postholes along its northwest side. This side was also emphasized by a shallow cut, **23**, which may have encouraged drainage downslope. The structure, which appears to have been open towards the southeast, faced the remains of the wall **16**. A rough beaten-earth surface, **20**, covered the area, both inside **13** and just outside it. The structure as a whole is probably to be interpreted as a rough shelter, whose roof would have been carried on a beam supported by two firmly set posts in front of the building. Pottery contained in the makeup included 'testi', but no glazed pottery, with the single exception of a sherd from a North African filter jar which came from the interface between **30** and **4** in the area of the hut[7].

A fairly clean layer some 30cm. thick, **4**, marks the abandonment of the area of the trench. This probably consisted of hillwash, accumulating over a considerable period of time. Over this lay modern plowsoil, **1**, cut by a small pit (**2**, **3**) and, in the southern corner of the excavation, the excavation trench of the carcer (**27**, **28**).

[7] This sherd was somehow lost: it was identified on site and its presence recorded in the notebook.

FORUM IV
(NICHOLAS CHURCHILL, 1993)

Objectives. The object of this trench was to have a further sample of the area of the forum plaza. This sample was chosen for its proximity to the Basilica, where Byzantine activity was evident. We felt that if Byzantine housing did exist in the forum itself this was the most obvious place for it.

Dimensions. The trench measured 4 x 6m., and was placed to the southwest of one of Brown's test trenches, adjoining the long cut made in 1972 to reveal the northeast edge of the forum. It was thus precisely 4m. from the southwest wall of the forum Basilica. Also included in this trench were the walls of the Byzantine building excavated in 1952 on the Basilica, which were cleaned and studied.

Stratigraphy. Over bedrock a layer of earth mixed with red subsoil was observed in section (**5**). This probably represents the makeup for the original surface. Over it, **4** contained large fragments of tile in clayey earth, which seems to represent the Roman abandonment of the forum, overlying the original surface. This was in turn covered by **3**, which contained large amounts of stone and tile, in places so dense that they appeared to derive from a collapsed wall, but without the sort of order that a collapse tends to show.

Dating. An imitation African lamp dates this deposit to the 6th c. The concentration of building material almost certainly derives from the cleaning out of the rubble of the Basilica in order to construct the houses and the church. The surface was well compacted, and covered with a much cleaner layer, around 25cm. deep, containing a few fragments of tile with little pottery (**2**), including red-painted sherds and an eastern-Mediterranean amphora.. This lay directly under topsoil, **1**.

FORUM V (1993-1997)
(ADAM RABINOWITZ)

Objectives and Excavation History. **Forum V** is co-terminus with the house called **Atrium Building V** (henceforth **AB V**) by Brown. The sanctuary found in the garden led us to rechristen it the House of Diana in a preliminary report[8]. The building was casually examined during Brown and Scott's excavation of the forum. Their investigation was limited to a narrow trench cut along the face of the house, extending about 0.5m. into the vestibule of the fauces and the fronts of shops C and D, and a sounding cut along the line of the south wall at its halfway mark[9]. Our excavation in the area began in 1993 with the aim of establishing whether there was late occupation either within the area of the forum plaza on its southwest side, or in the houses that bordered it, of which **AB V** was chosen as an example. The small area excavated within the forum plaza was linked to the area inside **AB V** by the forum portico. However, as the portico had been cleared during previous excavations there was no stratigraphic link between the two. In 1995 the area of the original trench was extended to the southwest by eight meters. This renewal of excavation was based on the presence of an early medieval hut and agricultural activity in the area of the site. By the end of the excavation, however, it seemed clear that **AB V** was a Republican domus rather than the atrium publicum suggested by Frank Brown[10]. Its well-preserved pavements and the evident interest of the building led us to carry out a September season in the same year, extending the trench a further seven meters to the rear wall of the tablinum. This campaign also saw the initiation of restoration work on the mosaic border of the tablinum, by Thomas Roby, as well as the excavation and conservation of the remains of the plaster and molded stucco in shop C by Silvia Nerucci. By the end of this season, several floors had not been entirely uncovered, and it became apparent that the service wing extended back towards street N. Therefore, two additional seasons in 1996 and 1997 were required to complete the excavation of the house and its garden[11]. In the

[8] Fentress and Rabinowitz 1996.
[9] *Cosa III,* plan on p. 5 and fig. 34, p. 96.
[10] Fentress and Rabinowitz 1996.
[11] The small team remained constant throughout the excavation: it consisted of Ali Ait Kaci, Stefano Camaiani, Laura Cerri, Silvia Nerucci and Luca Passalacqua. In various seasons they were joined by Roberta Bergonzoni, Elizabetta Gliozzo, Elisa Gusberti, Francesca Lunghetti, Mirko Berloso, Gary and Amy Farney, Ben Lyons, and Madhavi Menon.

penultimate season, a small bulldozer was used to remove the top 15cm. of topsoil, in order to speed the excavation. This may have led to some minor confusion in the uppermost stratigraphy of the garden area, but the blade remained well above the Roman destruction layers.

The discussion that follows will present the stratigraphy of the house from earliest to latest levels. It has been divided according to the general chronological phases we have established for the building. Within each contemporary group of actions, discussion will normally start with the front (forum side) of the house and move back; where actions take place at several different points in time over the course of a phase, the order of their mention will be determined by their relative chronology rather than their location in the house. Important structural elements and all contexts containing pottery will be mentioned by excavation number, in boldface. All structural features appear, with their excavation numbers, on the state plan of the house (fig. 4); it will be helpful to refer to the plan while reading this discussion. For further reference, a list describing all excavation numbers and noting the dating material and illustrations associated with each is appended to this section.

Dimensions. Within the forum plaza a trench of 7 x 10m. was opened, narrowing to an area of 5 x 5m. when it was realized that much of the area was contaminated by spoil heaps from earlier excavations. The dimensions of the larger area were those of the house and its garden, 17.5 x 33.5m.

Forum Stratigraphy. Within the forum, the stratigraphy resembled that of trench **Forum I**, without the cobbled paving of the road. The earliest surface reached, **6**, was of hard-packed brownish-red soil with very few stones, and was certainly a Roman forum surface, although without excavation its date could not be established. Above this was a thick, brown layer, **4**, with a smooth, well-compacted surface. It contained almost no material, and may represent a second Roman surface. The latest layer was composed of dark soil with small amounts of tile and was around 10-15cm. deep. In it was found a fragment of a rilled eastern amphora, Late Roman I.

THE HOUSE OF DIANA

Phase I: Republican Construction. Coins recovered by Brown from the foundation trenches of the external house walls dated the first building activity in the area to around 170 B.C. However, the black glaze in the earliest levels of the garden suggests a date around the middle of the century (part IV: p. 269). The discrepancy might be resolved by assuming that the house was built before the garden was prepared, but as the garden was certainly cut out at the same time as the rest of the house the later date is more likely. The earliest phase of construction involved massive excavation of the bedrock sloping up to the southwest: to create a more level layout, the bedrock in the rear of the house was cut down to a depth of up to two meters. In the south corner, the bedrock was left at a slightly higher level, creating an elevated platform. In the west corner of the house, where excavation was deepest, the sides of the cut were smoothed and straightened, and served as the lower levels of the walls of the building. In this area, a thin layer of black soil (**412**) just above the bedrock floor of the cut may bear witness to the initial construction phase. It is possible that this dark deposit is composed of the remains of fires used to crack the bedrock to facilitate its excavation. Since this area seems to have been used as a garden from the earliest phase of the house, however, the black soil may also represent the decomposition of an initial layer of organic material deposited as fertilizer. The composition of the layer was not analyzed, and thus it is impossible to confirm either interpretation.

During the same construction phase, several other cuts were made in the bedrock on which the house would sit. In the front of the house, two roughly square pits, each about two meters deep, were cut into the west corners of future rooms C and D (**177**, pl. 48, and **178**). Although both pits lack outlets, they seem to have been designed to function as cesspits. In other parts of the site, similar cuts have usually been interpreted in the same way[12], and it seems that the local limestone bedrock was porous and absorbent enough to make drainage arrangements unnecessary. The pit in room D showed an outcrop about 1.5m from the bottom from which a vault may have sprung, but it seems more likely that both this pit and the pit in room C were originally covered with simple planking. In the center of the house, a large, deep rectangular cut was lined with hydraulic mortar and roofed with a vault of rough, rectangular limestone voussoirs

[12] Brown, Richardson and Richardson 1993, 84 and 87.

(pl. 50). A short transverse passage was cut from the main chamber to a slightly truncated well shaft that opened in the atrium of the house. This structure was to serve as a cistern throughout the life of the house. A fourth cut was made in the south quarter of the house, forming a rectangular chamber about two meters long, 1.3m. wide, and about 1.5m. from floor to roof. Like the cistern, it was vaulted with rough, un-mortared voussoirs, but it was not lined. The lack of mortar lining suggests that this cut, like the cesspits in the front of the house, was intended for the disposal of wastewater. A square hole (ca. 0.5 x 0.5m.) left in the crown of the vault at its northeastern end may have been designed to allow periodic cleaning of the cesspit, though the long sequence of pottery deposited in this pit suggests that the primary use of the opening was rather the disposal of garbage (part IV: p. 287ff.). The chamber seems to have been designed to communicate through a natural (?) fissure with a large drainage area in room N; this area was partially covered by large, worked stone slabs that left an opening about 1m. square. The last cut in the initial phase of construction was an irregular squarish pit, about 1 x 1.5m., in the west corner of the platform of bedrock left in the south corner of the house, perhaps intended as a settling basin for what was to be a raised cistern.

Once the shaping of the terrain and the excavation of rock-cut features had been completed, the walls of the house were constructed, probably using the stones cut from the bedrock. In the front of the house, the builders used typical Roman construction techniques: dry-stone socles of roughly worked, medium-sized stones bore superstructures of rammed earth (pisé de terre). To the rear of the house, as noted above, the function of the socles was taken over by the bedrock sides of the original cut, topped by one or two courses of large stones. The form and phasing of the exterior walls is clear, as those cut into bedrock must represent the initial plan of the house. These walls enclosed a rectangular space about 17m. wide and 34m. long; their use as party walls by the "fish market" to the northwest and by **AB VI** to the southeast indicate that they and the space they enclose were part of the original central plan for this side of the Forum. Later modifications, especially in the rear third of the house, have made the original position of interior walls slightly more difficult to determine, but careful examination of construction technique and bonding relationships reveals a fairly clear picture of the plan of the Republican building.

In the front two-thirds of the house, the plan was to remain relatively consistent throughout the life of the building (figs. 4 and 5, pl. 2; see part I). It is a plan immediately recognizable from some of the older patrician houses at Pompeii[13]: the narrow fauces (A) flanked by tabernae open to the Forum (C to the southeast, D to the northwest) gave onto a large, square atrium (B) centered on an impluvium. Paired cubicula were located symmetrically on either side of the atrium (to the southeast, the original pair were located in the space that later became room E; to the northwest, from east to west, the cubicula are F and G), and beyond these, the space of the atrium was extended to the left and right by open alae (I and H, respectively). A large tablinum (J) opened from the back of the atrium, directly opposite the fauces. To the right of the tablinum was a door leading to another large room (K), probably a triclinium, while to the left a corridor or andron (M)[14] led past a service room (L) to the rear of the house. In the front of the house, the rooms opening on the Forum retain their original walls, as do the fauces and the northwestern cubicula. The walls shared by the atrium and the southeastern cubicula are original; although the wall between the two cubicula on this side was later removed, the original layout is indicated by a blocked door corresponding to the door of room F (see part I, p. 16). The walls shared by the tablinum and the triclinium are also original, as are the walls shared by the tablinum and the andron.

The situation in the rear of the house is somewhat less clear, since this area seems to have been frequently altered from the Republican period onwards. The northwest two-thirds seem to have formed a garden from the beginning, but the northeastern limit of this garden is obscured by the later floors of the triclinium (K) and the loggia behind the tablinum (Q). The door between K and the atrium, later blocked, suggests that this room was initially oriented to the northeast; by analogy with early Pompeian houses[15], it seems reasonable to suggest that K was originally closed to the southwest by a wall along the same line as the southwest wall of the tablinum. Southwest of R, more bedrock foundations seem to show that the square room (N) present in the last phase of the house occupies more or less the same space as the original room in that area. The earliest room here, however, possessed an additional internal wall (**442**) that seems, from limited excavation beneath later floors, to have run northeast-southwest through the room about

[13] See above, part I, pp. 14-19. The best example is probably the House of Sallust (Laidlaw 1993) although the House of Sextus Pompeius Axiochus (VI 13, 19: most recently, in *PPM* 202-203) also provides striking parallels; cf. Fentress and Rabinowitz 1996 for a more detailed examination of the comparative evidence.

[14] To avoid confusion with another corridor in the rear of the house, I will apply the Vitruvian term "*andron*" to M for the rest of the discussion.

[15] Laidlaw 1993.

1.75 meters from the original wall between it and the garden. **442** divided the drainage area from the rest of the space of N and bonded with the paving-slabs that covered it. Through the wall and down into the drain opening ran a flat terracotta channel with upturned flanges along its sides (pl. 50). This channel, together with the other drainage arrangements in this room, suggests the identification of room N as a small bath house, with water possibly heated in the culina, L[16].

The narrow rectangular room (S) in the southwest corner of the house also seems to have been a feature of the original plan. Its northeast wall (**235**) has been destroyed down to ground level, but the few remnants seem to show pisé construction and seem to bond with the external northwest-south wall of the house. Two plastered blocks (**308**) closing off the east side of the rock-cut pit to the northwest of this room continue the line of **235** and are probably also an original feature, but the precise relation between the pit and the room remains unclear. By analogy with houses of similar date at Pompeii, and by association with both garden and bath house, it seems likely that room S served as a raised cistern, with the pit constructed as its settling basin.

After the construction of the first walls of the house, floors were laid down. For the most part, the original floors of the house have disappeared, covered or torn out during subsequent renovations. Since, in most of the building, our excavation ceased at the level of the final floors of the house, we cannot offer certain dating for the more generic pavements. Although most of the floors should probably be associated with the Augustan reoccupation, a few floors cannot be ruled out as original. In the front of the house, the plain signinum in the rear of C and the partial plain signinum floor in the northwest half of D may be original, but their simplicity makes them impossible to date without further excavation[17]. Pavements in rooms G (pls. 70 and 71) and F could belong to the first phase of the house on the basis of both style and wear[18]. Both these rooms contain floors executed in the signinum and marble-chip technique known as pavimentum punicum, which may date as early as the fourth century B.C. (part III: p. 160ff.). In addition, the floors of G and F are heavily worn, unlike the pavements in the atrium and other parts of the house. The lowest signinum floor of room L and its underlying preparation (**339**) may also date from the first phase of the house: the find below it of a lamp of the early second century would support this idea (part IV: p. 264). The floor of R bears a molded depression around the cesspit access, probably meant for a metal lifting-bar with a long handle; this may be further evidence that it was constructed as a unit with the original service facilities, but may equally be the result of Augustan refurbishment.

Further to the rear, one floor is certainly original: a signinum floor in room N (**428**) bonds with the terracotta drain and abuts the original partition wall (pl. 50)[19]. The floor of the narrow room to the southwest (S) shows heavy damage, and may therefore date from the original construction of the house. At the same time, it was the closest to the surface of all the floors in the building and its wear may be due to post-abandonment erosion and agricultural activity.

In addition to the signinum pavements above, several beaten-earth surfaces probably represent original floor levels. In shop D, a series of hard-packed layers directly over bedrock (**255**, **250**, **249**) may indicate either the preparation for an early beaten-earth surface or the surface itself. A layer composed almost entirely of ash (**169**), uncovered just over bedrock along the wall between D and the fauces, may represent another layer of preparation or the remains of fire-cracking like that hypothesized for the garden. Similarly, a layer of compact earth at the lowest level of andron M (**220**) seems to have been the original floor or its preparation.

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[16] The location of this room in the back of the house, near the kitchen, is consistent with the location of a number of Republican bath rooms. The earliest of these bath areas tended to be composed only of one or two rooms, and most seem to reflect a concern with distancing bathing activity from the more "public" or visible areas of the house. The general simplicity of the earliest phase of room N does not necessarily argue against its use as a bath: one must bear in mind Seneca's approving mention of the small, dank, dingy bath appointments in the villa of Scipio Africanus (*Ep. Mor.* 86). For further material on early Roman private baths, see Fabbricotti 1976; Yegul 1992; Broise 1991; Lafon 1991.

[17] The *signinum* in C is significantly higher than the later mosaic floor, but the construction of the mosaic floor presumably involved the total removal of any earlier pavement, and it could easily have been laid down on a lower level than the original floor. The early phasing of the pavement at the rear of the shop is supported by the rough edge between the *signinum* and the secondary dividing wall; it appears that the pavement was cut during the construction of the wall, rather than laid against it. In shop D, the early beaten-earth surfaces are substantially lower than the *signinum* pavement, which might suggest that the *signinum* is a later feature. At the same time, however, it is possible that part or all of the original beaten-earth floor was removed during the laying of its late 1st c. B.C. successor (see below).

[18] See the discussion of the floors and decoration in part III.

[19] This pavement did not continue over the area of the drain between the wall dividing the room and the wall of the garden. In fact, there was no indication that the area of the drain had ever been paved. Since the only door to this room in the Republican and Augustan periods led into this area, we must assume that it was floored with wooden planking until the drain was filled in and the Claudian/Neronian floor laid down. On the state plan of the house (fig. 4) this area is shown as it appeared after we had removed part of the Neronian floor of N and its preparation.

Activity also took place in the western corner of the house during this period. After the initial cut for the garden had been completed, the area was filled in with soil to a depth of 25-40cm. This soil (**392**) does not seem to have been uniformly turned over, but was instead planted with a number of permanent small trees or shrubs. Many planting cuts could be clearly seen in its surface (fig. 64). These cuts ranged in size from 0.2m. to 0.75m. in diameter, and most were filled with a greenish earth that probably represents fertilized planting soil (cuts **387, 388, 389, 390, 391,** all filled by **381;** cuts **399** and **401**, the original fill of which was not preserved; cut **415**, filled by **414**; cuts **417** and **418**, both filled by **416**; and cuts **424** and **432**, filled by **423** and **394,** respectively). Such an interpretation is supported by the presence, in the southwest corner of the garden, of a larger, rectangular cut descending to bedrock. The cut was filled with a green soil (cut **422**, fill **386**) that mirrored the greenish tinge of the planting soil; it was probably a composting pit, and the green color of the soil it contained may mark the presence of decayed organic material with a high phosphate content, such as animal manure. Several planting pits were clustered around a section of the west wall of the house that was later to become a fountain. This might be an indication that a water outlet was present in that area from the beginning of the life of the house, but we have been unable to determine the source of the water even in the later period, so such statements must remain speculative. Not all of the garden area seems to have been planted: a beaten-earth surface of red soil with white speckles (**426**) was mixed with **392** along the southeast wall of the garden, and may indicate the earliest phase of a non-agricultural use surface in that area. The final feature of the initial garden lay in the east corner and was composed of a depression filled with a soft, brown soil (**425**); this layer was unlike any of the other plantings in the garden, and its very poor stratigraphic preservation made it impossible to interpret.

Phase IIa: Republican modifications. The House of Diana seems to have been constructed in the early or middle 2nd c. B.C., and the first hiatus in its use seems to have begun when Cosa was sacked around 70 B.C. This time frame allows as much as 120 years of occupation, and it would be helpful to be able to subdivide this period into more than one phase. Unfortunately, modifications were made piecemeal and in several different and non-contiguous parts of the house, and it is thus impossible to determine the precise sequence of events. For this reason, all Republican changes and signs of occupation will have to be discussed as a single phase.

The only layers we could associate with use in this period are located in the cesspits, which were conveniently filled in later in the Republican occupation. These layers include thin deposits of greasy greenish-black soil in the cesspits in shops C and D at the front of the house (**286** in C, **273** in D) and a layer of clayey sediment (**403**) in a settling depression in the floor of the rear cesspit. These probably represent organic waste and contained no pottery. In the late 2nd c. B.C., the front pits seem to have been filled in with rubbish, including nearly-complete amphorae (part IV: p. 286ff.). Both deposits (in C, **271**; in D, from bottom up, **269**, **266**, **261,** and **260**) included very dark, rich soil that may represent the decomposition of organic waste or wooden flooring material used as fill. Numerous joining sherds were scattered through the various stratigraphic layers we identified in the fill of D, confirming that the pit was filled in the course of a single action. The fills in D contain a number of plates, as well as whole amphorae. In C, a relatively large number of bone styli and of ceramic cups and bottles included in the fill may bear some relation to the activity that took place in this room during the Republican period: perhaps we are dealing with a wine shop. While the pit in D went out of use entirely, the pit in C was only partially filled; above the fill, a surface of close-fitting but irregular tile fragments was laid down (pl. 51). The full extent and function of this tile pavement are unclear, but it was probably located only in the area of the cesspit and may have been a work or washing surface.

The interior of the house seems to have undergone very little change during this period. In the rear, however, several adjustments were made. In room L, a fairly large, deep cut was made along the west wall (**184**). The function of this arrangement remains unclear, and there may have been significant excavation error on our part in this room. As a tentative hypothesis, however, we might suggest that the cut in the floor of L was used as a washing basin. Other Republican houses at Cosa often include a puteus or basin with quarter-round moldings and the absence of such a facility in the house at this early stage may have required an alternative solution. Between room L and the bathhouse, in the future room P, a second large cut appears to have been designed to take water from the roof, where the outer slope of the House of Diana met that of its neighbor, **AB VI**, and direct it into the cesspit. This feature cuts an earlier rough signinum pavement, which may have been damaged by prior runoff.

The nature of the agricultural exploitation of the garden area seems to have changed during the Republican phase, and at a certain point much of the original planting soil was cut away, leaving only a 1-2m. margin along the southwestern and southeastern walls of the garden (figs. 7 and 64). The cut in the rest of the area (**433**) was filled in with a smooth brown soil (**395**) at a level slightly below that of **392**. Whereas, in the original garden, planting pits were dug for individual plants, the second Republican garden seems to have been separated into a walking or tree-cultivation area along the walls and a uniformly tilled planting surface in the rest of the area. **395** only showed three intrusions, far fewer than **392**. Of these, the largest was a circular pit that seemed to have been used as a midden: it was filled with a deposit of thick blackish soil and many sherds (cut **413**, filled by **411**). This cut was located in the southwestern angle of **395**, along the edge of **392**. The other two intrusions were small and filled with soil lighter and harder than that of the layer itself, suggesting that they represent structural rather than agricultural features (cuts **408** and **410**, filled by **402** and **409**, respectively). The cuts were roughly along the short axis of the garden and could have been made to support something such as plant poles. This part of the garden may have now been used to cultivate an annual kitchen garden, rather than perennial vegetation and small trees. An interpretation of the black, rich soil of **411** as kitchen refuse used as compost would tend to support this idea. In addition, the line along which **392** was cut away seems to follow almost exactly the edge of the area of shade cast by the southeast and southwest walls of the garden, and it is possible that the spatial reorganization of the garden reflected the cultivation of more sun-loving herbs and vegetables. At the same time, however, we must acknowledge that cut into which **395** was laid, by interrupting the original garden surface, makes it impossible to rule out earlier functional divisions in the garden.

By this time, the garden had taken the shape that it was to preserve for the rest of its use. At some point after the division of the garden into different planting or use areas, the holes along **237** were filled in with large rocks (cuts **387-391**, filled with **382**; although **398**, the fill of **399** and **401**, contains some later material, it probably also dates to this period). These rocks were probably meant to create a solid footing for a fountain that was then built into the west wall of the garden. This fountain consisted of a rectangular masonry projection built out from the west wall; within the projection was a deep, narrow basin. Above the basin a rounded niche, similar in shape to several fountains known from Pompeii, was cut back into the bedrock of the southwest wall (pl. 52). The long-term presence of moisture in the structure is clearly shown by the heavy calcium carbonate precipitates found in the drain of the basin (**383**). The source of the water that fed this fountain has not been determined, but it may have been supplied from the raised cistern of the bath complex. Perhaps around the same time[20], a new layer of dark brown planting soil (**372**) was laid down over **395** where **392** had been cut away (pl. 54). This planting soil was then cut by a rectangular trench about 0.5m. wide, filled with reddish earth (cut **375**, filled by **374**: pl. 53). This trench ran along the short axis of the garden, turning at a 90º angle to the NW about 1.5 meters from the southwest wall of the garden. Another cut (**451**, filled by **452**), discovered beneath the northeast side of the aedicula and ending on the same line as the northeast end of **375**, may represent the other end of a U-shaped feature[21]. The regular plan of this cut might suggest that it formed a planting trench for a hedge or some other type of linear plant arrangement, in which case its hard, compact, mortar-speckled fill (**374**) could represent Republican destruction material used to fill the cavity left by the removal of its roots during the initial Augustan reoccupation. Unlike **370** (below), however, it contained no dating material later than the 2nd c. B.C., and it is equally possible that the hard fill was the makeup for a decorative path running through an area now used for purposes other than food production. Together with the fountain, this feature may indicate a transition from functional to ornamental garden as early as a later Republican phase of the house[22].

Phase IIb: Republican Destruction. Although Brown's excavations in other areas of the site, specifically at the House of the Skeleton, have demonstrated that the city of Cosa suffered some particularly devastating catastrophe around 70 B.C., the

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[20] The functional division of the garden has made it difficult for us to establish chronological relationships between its various features. The fountain has no stratigraphic relation with **372**. **372** post-dates **395**, while the fountain post-dates the deposit and agricultural use of **392**, but the suggestion of a chronological link between the two features is based in large part on our ideas of the changing nature of the garden.

[21] Since the area beneath the aedicula was left almost entirely unexcavated for reasons of conservation, we were not able to establish with any certainty that this cut formed part of **375**. In addition, the stratigraphy of the area in which **451** was located was somewhat disturbed by the action of olive roots. Our reconstruction must therefore be viewed in light of these factors.

[22] Such a transition would be in keeping with the general trends in contemporary Cosan domestic architecture: the garden of the House of the Skeleton, constructed in the early 1st c. B.C., shows a similar ornamental arrangement, with paths, possibly lined with hedges, passing through an area planted with a few larger trees and bushes (*Cosa IV*, 148-151).

later reoccupation and reconstruction of the House of Diana seem to have removed most archaeological traces of its destruction or abandonment. A number of walls, both interior and exterior, were heavily reconstructed in the Augustan reoccupation, and it therefore seems reasonable to assume that the house was at least partially in ruins by the third quarter of the 1st c. B.C. Archaeological evidence for sudden destruction, however, was scarce and ambiguous. Toward the south end of the garden, on the surface of **392** still in use in the later Republican period, we uncovered two roughly linear patches of black earth containing large amounts of charcoal (**393**, **394**). These patches may be traces of burnt wooden structural elements – beams, jambs, lintels – fallen into the garden during the partial destruction of the house. Since the old garden surface was covered by new soil in the later reoccupation, the remains of the burnt wood would not have been subject to the thorough clean-up that seems to have taken place in the rest of the house. In addition there was a narrow strip of burnt material (**434**) above and around the mound of fertilizer in the southwest corner of the garden, for which a similar interpretation might be suggested.

Phase IIIa: Augustan Reoccupation and Renovation. The house seems to have remained in a state of partial destruction until the reoccupation of the area in the late 1st c. B.C.. At that time, it was reconstructed and substantially modified (see part I, pp. 34-38, for more detailed discussion). The southeast wall (**23**) was essentially rebuilt from the ground up in a masonry technique involving small stones set in a hard, grainy gray mortar. Several internal walls were also built or modified in the same technique. Both of the shops at the front of the house seem to have been provided with a loft or attic during this reconstruction: in C, a thin partition wall in gray-mortared rubble masonry closed off a narrow space that may have served as a stairwell[23], while in D a construction in gray mortar (**206**) abutting the southwest wall of the room may be the base of a staircase. The door to the triclinium (K) was blocked at this time, as was the door to the northeastern cubiculum of the pair that preceded room E. Both were blocked in gray-mortar masonry that stands out from the original pisé walls in which the doors were located. The southwest wall of room L (**184**) was rebuilt with gray mortar during this period, as was its northwest wall (**89**), which abutted the southwest wall of I (**88**) and closed the service room off from andron M. To the southwest, **184** also bonded with another thin divider in the same gray-mortared stone interspersed with tile courses (**187**). Another partition wall in the same technique (**305**) ran from **23** to bond with **187**; together, they enclosed part of the area that had been an open court and formed room P. A line of mortared stones (**306**) probably represents a sill between M and the new corridor, R. A gray-mortared wall (**192**) extended andron M to the southwest, separating it from the new loggia. It was built up against the plaster face of the south end of the southeast wall of the tablinum and included a regular stone sill, later robbed and now visible only in the edges of the signinum laid against it and in the tile-and-mortar leveling course beneath it. The doors to P and L may also have had sills, but the somewhat irregular tile-and-mortar courses at the base of both doors (**307** and **440**) may themselves have served as crude thresholds.

The construction of wall **305** left a narrow space between room P and the bath building. When the northeast (**234**) and northwest (**272**) walls of the bath building were rebuilt, bonding with each other and with the wall-stub and engaged column (**304**) that formed the south end of the loggia (**244**), this narrow space became a corridor (R) leading to a new door (**431**) cut into wall **23** (pl. 55). The simultaneity of these construction activities is demonstrated by the relation between walls **23** and **234**: while **234** clearly abuts **23**, the plaster on its southeastern face continues unbroken across the cut edge of **23**. Fragments of mortar preparation left in the area of the sill of this opening seem to preserve the impression of bricks laid in a herringbone pattern over a packed-earth preparation level (**330**). If this sill was in fact paved in opus spicatum, a technique often used for work-floors and those exposed to moisture, it may support the hypothesis that **AB VI** was reused as a farmyard[24]. On the northwest side of the house, the other wall-stub and half-column belonging to the loggia (**244**) clearly abut the exterior wall (**33**). While this exterior wall is cut in bedrock, and bonding would not be possible in any phase, the gray-mortar construction of both this wall-stub and the two freestanding columns of the loggia strongly supports their association with the late 1st c. B.C. reconstruction of the house.

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[23] While it is possible that the gray-mortared partition wall reflects an original Republican division of space, there is additional evidence that the stairwell or corridor was an Augustan addition. Where the edge of the potentially original rear floor is visible in the doorway between the two spaces, it is obvious that this pavement was cut roughly along the line of the new wall. If there had been a pre-existing wall in the same location, one would have expected a molded pavement edge — as, for example, is found at the end of the same pavement next to the tile basin.

[24] *Cosa III,* 241.

Most of the current floors of the house seem also to have been built at this time. The fauces received a fine signinum pavement (**132**) equipped with plastered earthen benches in the vestibule, a wide stone doorsill, later robbed, and a drain leading from the atrium out into the forum. This pavement bonded with the pavement of the atrium, which in turn bonded with the basin of the impluvium, the well-head, and the relining of the draw-shaft and cistern (pl. 56). It also bonded with the decorated floor of ala H (pl. 72). In the opposite ala, a beaten-earth floor (**82**) was laid (pl. 57). This floor was divided from that of the atrium by a sill of rectangular cut stone blocks of varying lengths and widths (**86**). The sill was located exactly over the south end of the vault of the cistern. It is difficult to say what relation this arrangement bears to the plan of the earlier house, and it is also unclear whether the placement of this sill served some structural function; it may be noted, however, that there was no sign of any earlier pavement or structure in this ala. Other renovations clearly deviated from the original floor plan. The dividing wall of the original cubicula in room E was torn out, and the original pavements were replaced by a single signinum floor (**11**). This floor was located at a somewhat higher level than the original floors, as the first-phase wall-plaster descends below the rudus of the new pavement. We were unable to see any trace of the original pavement in the small cut that revealed the plaster. At the same time, a new door opening toward the service rooms was cut in the southwest wall of E (**87**); it may have formed a service entrance for a new indoor dining area. Parallels for this arrangement in triclinia at Pompeii support this interpretation. In addition, the signinum and mosaic pavements of the tablinum (**94**: fig. 100, pls. 5, 73), the triclinium (**151**: fig. 102, pls. 6, 75) and the loggia (**195**; pl. 76) date to the reconstruction. Ceramic evidence suggests that the final beaten-earth floors of andron M (**141**) and of shop D (**19**, **161**, **162**, **167**, **174**, **247**)[25] also belong to this period.

This reoccupation seems to have substantially changed the arrangement of the service suite. The "basin" in L and the drain in P were both filled in and leveled in preparation for the placement of new floors. The fill of the drain consisted of a level of dark soil containing chunks of limestone (**321**), covered by a thin layer of bright red soil with mortar inclusions (**317**). The exact nature of these fills is unclear; they may represent sediment from use covered by pisé collapse from the Republican house, or they may simply be earth brought in to level the room during the Augustan reconstruction. The same ambiguity holds true for the fill of the 'basin' (**329**), where our stratigraphic uncertainty is even more marked; it is likely, however, that the fill is a product of the reconstruction. Once these features had been filled, a new signinum floor (**186**) was laid in L, separated from the preceding floor only by a very thin layer of blackish soil (**325**), perhaps nothing more than the dirt accumulated during the abandonment of the house. In conjunction with this new floor, the original area of room L was divided into two roughly equal parts by a thin pluteus (**188**). This wall was built entirely of packed earth plastered on both sides, without foundation: it probably functioned as the wall of a washbasin in O, the room formed to the east. O was also provided with a drain and quarter-round moldings. Elsewhere on the site, these moldings are understood to mark putei (washing areas), since they are designed to prevent large quantities of water from seeping into the seams of walls. It appears that this room was constructed to take over the washing functions previously served by the much cruder "basin" and "drain" in L and P. P itself seems to have been constructed as a cooking area. A new beaten-earth floor (**179**) was probably laid at this point. Its somewhat ashy composition and the presence of a 0.8m. wide pisé feature (**189**), possibly a cooking platform, along the south wall of the room, both suggest the identification of this room as a culina or kitchen.

In the bath complex, change was less drastic. The thin-wall pottery dating the fill of the soak-away pit (**291/380**) indicates that the pit continued to be used during the Augustan reoccupation. A new floor in room N, made of cubilia , probably dates to this period, although it is also possible that it dates to the last Republican phase and was simply reused in the Augustan building[26]. The floor seems to have taken **442** as its boundary and permitted ongoing use of the earlier drain.

The Augustan reconstruction of the garden area respected the earlier division into areas of agricultural and non-agricultural use (figs. 16 and 65). Along the south and west walls, a hard, red soil full of plaster and tile fragments (**370**) seems to be pisé collapse from this house or elsewhere used to create a hard-packed walking surface. This deposit

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[25] What was probably a single beaten-earth surface in D was, as a result of later intrusions in almost every other phase mentioned in this chapter, excavated and recorded under the various numbers above (**19** was the surface to which the late hut had been cut; **161** and **162** were non-contiguous areas under the agricultural disturbance of **160**, etc.).

[26] Whether this floor belongs later or earlier in the 1st c. B.C., it provides additional support for the interpretation of room N as a bath room. In his abovementioned discussion of earlier baths in Etruria (*supra*, n. 16), H. Broise notes that cubilia pavements can be taken as an almost incontrovertible indicator of the presence of bathing facilities (p. 88, citing houses previously excavated at Cosa, among other sites).

sloped down sharply away from the walls, and in the depression thus created in the northeast two-thirds of the garden, a richer, cleaner, softer brown planting soil was laid down (**369**). This layer provided clear Augustan dates both in its ceramic evidence and in a coin of 7 B.C. (catalogue n. 51). The only evidence for planting pits in this phase of the garden was found in **370** near the northwest end of the fountain, which remained in use in this period. There, a small, irregular hole roughly lined with rock and tile (**385**, filled with **384**) may have been intended to hold a small ornamental tree or shrub. The small size and total isolation of this cut, however, make it possible that it served some other unknown purpose.

At the same time, another notable modification was made to the garden: a gutter was added along the edge of the pavement of the loggia. This gutter was made up of blocks of unequal lengths and widths, although the channel cut in each was perfectly aligned from block to block. Such an arrangement probably represents the reuse of blocks from the gutter of another structure; the size and workmanship of the stones may indicate an original installment as part of a public building or space[27]. The gutter was set in a construction trench only slightly wider than the widest blocks (**397**), and leveled by a fill (**396/406**) including a partially intact clay jar set on its side. The outlet for this gutter was never ascertained, despite thorough excavation in the space left between it and the south wall of the garden. It may have communicated in some unknown manner with the rear soak-away pit or with some other basin or recipient. Runoff collected at the end of the drain could then have been used to water the garden. The presence of a substantial feature at the south end of the drain is also suggested by a later intrusion in that area, perhaps to be associated with robbing activity.

One final element in the Augustan phase is only loosely contemporary with the reconstruction of the rest of the house and is dated by its frescoed decoration, which, on stylistic grounds, must date to around 15-5 B.C. In the front of the house, shop C was provided with a new mosaic floor (**48**: fig. 94, pl. 66). This floor was significantly lower than the plain pavement (**118**) of the narrow passage in the rear of the shop, and unlike **118**, it has a molded edge bordering on the threshold of the door between the two areas. The lower level should be explained by the removal of an earlier floor, while the molded edge of the threshold, in contrast with the cut edge of **118**, shows that this pavement was built with or after the dividing wall. Ceramic evidence also suggests that the tile basin that had been constructed over the original cesspit was filled in with a hard red earth (**265**) at this time. Other features of this phase of C, in conjunction with the fine pavement, suggest a change of use. At the same time as the shop received its new mosaic pavement, its walls and ceiling were decorated with very finely executed frescoes and stucco reliefs (part III: p. 147ff.). The quality and apparent subject matter of these reliefs suggest that the room was now used for non-commercial purposes. In addition, the shape of the preserved stucco indicates that the room was now covered with a barrel-vault rather than a flat ceiling; this vault would have eliminated any loft storage space to which an earlier stair or ladder in the rear corridor could have provided access. It is suggested above that shop C, in its new incarnation, may have been a public shrine. If this is the case, the earlier stairwell or corridor at the rear of the shop may have been put to use as a storage space for cult paraphernalia. Two nails found at the threshold of the door into the corridor suggest that the passage was closed by a wooden door, which might indicate a concern for security equally applicable to the storage of cult material or commercial goods.

Phase IIIb: Augustan Modifications. While most of the substantial modifications to the house took place two generations or more after the initial reoccupation of the house, one significant change seems to have been made in the rear of the house relatively soon after its reconstruction. Here the northwestern column and half-column of the loggia were absorbed by a gray-mortared curtain wall (**231**) closing off the triclinium (K) from the garden. This new wall ended at the line of the wall between J and K (**194**), bonding with a wall stub that ran back toward the front of the house along the same line (**193**). This wall stub was mirrored by another built out from and abutting the wall between J and K; together, they formed the sides of a door separating K from the loggia (Q). On the pavement coinciding with the doorjambs, roughly square marks may indicate the position of wooden trim; they may also be the traces of cuts made in the floor to lay more solid foundations for a wall that would have borne the load of the back slope of the roof of the house. It is difficult to tell whether the wall reached the full height of the room, but its size and solid construction technique, as well as the possibility of new foundations cut through the extant floor, suggest that it did. The process of the construction of this

[27] R. Scott has suggested that these blocks were taken from the gutter of the forum portico, and noted that very few of the blocks that made up the portico gutter were found during excavations in the forum (R. Scott, pers. comm., June 1996).

wall seems also to have left its mark in the garden, where a thin, irregular patch of gray mortar (**371**) trampled into the Augustan garden surface near the gutter may be construction debris. The new wall was frescoed on both sides, and similar painting in the rest of the area of the garden probably dates to the same period.

Phase IV: Claudian Renovations. During the middle and later years of the first century A.D., several areas of the house underwent modification (fig. 19). The social and historical context of these modifications are discussed elsewhere; here, discussion will be limited to their stratigraphic aspects.

Little changed in the main part of the house. In shop D, a small and inexplicable hole was dug into the beaten-earth surface in the area of the former cesspit and then filled (cut **175**, filled by **176**). In the atrium, a low wall made of tile and stones bonded in an earth and mortar mixture and covered with plaster was crudely superimposed on the pavement around the impluvium (**28**). Additionally, at some point after the Augustan occupation, cubiculum F was divided by a roughly built dry-stone wall, **37**, running on a slight diagonal from the southwest wall of the room to about 0.75m. from the northeast wall. Between the wall end and the northeast wall was placed a large, roughly circular stone with a smooth, shallow rounded depression in its upper surface. Both the small size of cubiculum F and the relatively careless masonry of the new wall suggest that the wall served as the foundation of some piece of furniture rather than a true divider, as does a posthole cut in the pavement to its northwest. The stone with the round depression may have had some as-yet-unidentified structural or industrial use. Finally, the pavement of this room was mended with beaten earth during the last phase of its use. This beaten-earth patching (**171**) contained a fragment of a Republican funerary inscription (part IV: pp. 266-67).

Unlike the main living quarters, the rear of the house underwent substantial changes at some point around the middle of the 1st c. A.D. Most of these changes focused on the garden, which seems to have developed a new function during this period. A new wall (**264**) was built along the edge of room Q from the corner of **231** to about 1meter past the southeastern column, partially engaging that column and creating a door where there had previously been an open loggia. The new extension was less substantial than **231**: it was built of tile fragments set in a matrix of yellow, friable mortar and was significantly thinner than the Augustan wall. Where **231** completely absorbed the pre-existing northwestern column, the southeastern column remained visible on both sides of the Julio-Claudian addition. This wall was probably a pluteus. It was certainly not structural; it seems to have been intended to screen room Q off from the garden, completing the separation of the living rooms of the house from the open space at the rear.

In this increasingly independent space, the ornamental garden that seems to have been cultivated during the Augustan period gave way to a very different arrangement (fig. 20; pls. 7 and 58). Plantings seem to have been removed and replaced with bare earth or perhaps a grass lawn. Although we were unable to identify a clear surface associated with this phase of use, the plain earth surface still in use in the final phase of the area seems to indicate the arrangement of the Claudian garden[28]. Along the northwest wall of the garden, about halfway between the exterior wall of the house and the rear of room K, a large aedicula, about 2 x 4m. and more than 2m. high, was constructed in the same brick/tile and yellow, friable mortar used to close off room Q and to raise the height of the impluvium. The shrine, like the wall closing Q, shows a certain hastiness of construction: most notably, the building seems to lack a proper foundation and now sags visibly. It has been only partially preserved, but it is clear that the structure consisted of a podium with frontal steps and a small cella. Originally, it may have presented a distyle prostyle facade. The exterior was plastered and decorated with a red reticulate pattern on a white ground; inside the cella, marble plaques in the shape of a square and a circle were set into a plaster floor and a trapezoidal platform of earth revetted with marble (**241**) stood against the back wall. The narrow entry to the cella was equipped with a worked stone doorsill (**298**) with cuttings that may indicate a locking door. While the walls of the cella (**230**) were built entirely of courses of tiles and stone in yellow mortar, the podium (**299**) consisted of a casing of stone, tile and mortar around a core of pebbles set in a sandy mortar matrix. This technique caused the steps and pronaos to crumble more rapidly than the cella, and although the front corners of the podium remained intact, only a single step was preserved. This step may give a further indication of the somewhat

[28] Excavation was complicated by the fact that an apparent surface was reached during the 1996 season, then left exposed for a year; subsequent surfaces may have been the product of weathering rather than ancient activity. The ceramic record for the surface we originally understood to be in phase with the shrine shows that it must be dated to the later life of the area, and it will be discussed in phase V. All of the soil above the Augustan garden surface, however, was strikingly uniform, and there is no evidence that the bare earth or grass surface at the end of the life of the garden differed from the surface in use during the Claudian period.

expedient nature of the construction of the aedicula: it was a well-worked rectangular marble block, broken jaggedly at one end, that seems clearly to have been cannibalized from some other setting. In front of the aedicula was set the broken base of a column. Although its upper surface was rough and uneven, it may have functioned as an altar or a statue base in association with the shrine.

In the west corner of the garden a substantial stone staircase (**296**) was built, covering the wall plaster of the earlier phase. Large, roughly worked stones of various sizes and proportions were cemented with the same yellow mortar found in the aedicula and the wall of Q; four steps rose to a square platform from which more steps probably sprang. Oddly, although the walls of the house were preserved to 0.5m. or more above the level of the existing top of the stair, there was no evidence of a door. Nevertheless, it seems obvious that the presence of the stair requires the existence of a door, and the ground level of both the street to the west and the "forum piscarium" to the northwest allow the possibility of an entrance to the garden via the stair from either of these directions.

The niche midway along the southwest wall of the garden seems to have continued to serve as a fountain during the Augustan period, but in the course of the Julio-Claudian renovations the basin of the fountain was filled in with earth and stones (**379**). The fill was covered with a level layer of mortar (**378**) that served as a preparation for a surface in opus sectile, several marble elements of which were found embedded in situ in the mortar preparation. These included various spolia, including a fragment of an anthemion frieze. The walls and roof of the niche, meanwhile, received a covering of irregular lumps of variously colored slag deriving from vitrified kiln walls, together with seashells set in a rough mortar matrix. Parallels for this treatment of the niche as a grotto can be found in a number of 1st c. A.D. nymphaea and aediculae at Pompeii, and it seems clear that the fountain had now become a decorative element in the new arrangement of the garden.

To the southeast, the bedrock-cut depression associated with the raised cistern in the south corner was filled in with soil; the fill (**294**) contained a coin of Claudius (catalogue n. 60). At the same time a door was cut through the southeast wall of the garden (**272**), interrupting the wall-painting scheme of the Augustan-phase plaster. A massive sill (**429**), made up of two regular stone blocks, one much larger than the other, was then inserted into the wall. Bronze sockets for doorposts, set into the sill blocks, suggest substantial wooden doors, and the generally high level of workmanship in the sill may indicate a fairly elaborate entrance. In contrast to this, however, a crude step (**430**) composed of several irregular stones led up to the sill from the garden surface. In N, the cubilia were torn from their preparation and used, with rocks and soil, as a fill (**352**) for the drain. The room was then refloored with a plain signinum pavement (**348**; pl. 51) which bonded to the sill and covered the filled-in drain. There are no clues as to the use of room N in this phase: the wall plaster is too poorly preserved to be informative, and the absolute plainness of the pavement seems an odd contrast with the monumentality of the new door. Given the religious overtones of the rest of the changes in the garden, it is possible that N was used for a cult purpose -- as a storage area for cult items, perhaps, or as a meeting place for the participants in some ritual activity. Alternatively, it may simply have become a dining room. The grand door may have been intended to complete the decorative effect of the garden, regardless of the purpose of the room behind it.

Probably at the same time, a low bench or platform about 0.5m. wide (**435**) was added to the area of **272** southwest of the new door. Although this structure was built of tiles and flat stones set in gray, not yellow, mortar, it stops just short of the position of the new door to N and thus may have been built in conjunction with it. On the other hand, the door may have been placed to respect the location of the bench. While the exact relation of these two features cannot be determined with any certainty, the bench abuts both the southeast and the southwest walls of the garden and, like the door, is clearly posterior to the initial Augustan reconstruction of the area. A last feature of the Julio-Claudian garden was a very large stone in the form of a flattened rectangular solid (**439**). It was worked on one of the wider surfaces and rough on the other, and it was set on one of its narrow long sides in the soil of the garden at an approximately right angle to the back wall of the house, about 0.2 meters away from it and about 2 meters in front of the bench. It was approximately 1.7m. long and served no obvious purpose – in fact, the only reasons to suspect that it was not part of the collapse of the house walls were the depth to which it was set in the garden surface and the fact that its width was somewhat greater than that of the walls from which it could have fallen. The squarish area bounded by this stone, the southwest wall of the house, and the bench mentioned above contained nothing different from the rest of the garden. The only incongruous feature was a pronounced belling of the bedrock forming the lower part of the west wall, while

elsewhere along this wall the bedrock had been trimmed to an even plane. The plastering of the wall was not interrupted in this area, and the plaster simply followed the curve of the rock.

The house seems to have been abandoned fairly suddenly at some point in the third quarter of the 1st c. A.D., soon after the changes discussed above. Two collections of pottery were found on the floor of the house, immediately covered by roof and ceiling collapse (pl. 59). Both groups probably fell from wooden shelves. In the atrium, a group of vessels (**80**) gave a date of A.D. 40-70; another group (**154** and **155**) on the floor of room F could be dated less precisely to the end of the 1st c. A.D. Other pottery found in the lower levels of strata of collapsed pisé tells a similar story: groups of articulated sherds found under the collapse in M (**140**) and in N (**350**) can be dated to around the middle of the 1st c. The latest coins found in the main cistern are both of Claudius and belong to the middle of the century (catalogue nn. 58 and 59). Finally, a coin of Nero dating to A.D. 66-68 was found on the floor of I (catalogue n. 62). It seems safe, therefore, to assume that this collection of dating material provides a terminus post quem for the abandonment of the living areas of the house.

Phase V: The Late First Century to the Mid-Second Century. During this time, the separation of the garden area from the rest of the house seems to have become complete. The garden and room N continued to be used throughout this period, while the house itself slowly collapsed. Since patterns of use were so different in the two areas, the house and the garden will be treated separately in the following discussion.

THE HOUSE. Though the moment of abandonment of the house is fairly well-established, the time frame of the collapse of the building itself is not entirely clear. It is possible that the house could have come down as a result of a seismic event or a serious fire; an abrupt collapse may be indicated by the discovery of both the masonry jambs (**64**, **173**) of room G fallen face-down and intact, complete with partial plaster covering, on the floor of the atrium. In addition, a layer of charcoal 1-2cm. thick on the floor of room F (**170**) may represent wooden furniture burned during a violent destruction. On the other hand, there is no overall trace of burning, nor is there a literary record of an earthquake in this area in the later 1st c. A.D. In addition, the fact that the garden walls did not fall for another hundred years might argue for a more gradual process, and the charcoal in F could indicate nothing more than a fire lit by squatters in the abandoned building.

In any case, parts of the house seem to have stood for long enough for the better building material to be despoiled. The massive doorsill between the vestibule and the fauces seems to have been removed during this period, leaving a compact brown earth backfill (**196**). Similarly, a doorsill seems to have been removed from the entrance to room G. Finally, a worked stone sill belonging to the door between corridor M and room Q was also removed. At the same time, material began to filter into the disused cistern, beginning with the bucket used to draw water: its metal handle was found lying on the cistern floor at the bottom of the draw shaft.

The subsequent ruin of the house took place according to the classic model for the collapse of buildings constructed primarily in pisé or rammed earth[29]. First, the wooden beams of the roof rotted and the roof fell in. While many of the destruction layers were disturbed by later activity, an excellent example of this stage was preserved in the tablinum, where directly over the mosaic floor was a layer of broken tiles and fragments of ceiling plaster (**76**). The ceiling plaster bore polychrome painted decoration on one side, while on the other was visible the impression of the reeds to which the plaster had been affixed (pl. 74). Similar deposits were present in rooms Q (**326**; pl. 11), H (also **76**) and K (**144**), although in the latter the collapse had been somewhat disturbed by the roots of a large olive tree just to the northwest of the house.

Next, with the roof gone, the tops of the walls were exposed to precipitation and began to deteriorate. In several places, it is clear that the first step in this deterioration was the separation and collapse of the wall plaster coating the pisé core. Intact sections of plaster collapse were found in several rooms: one was located in the front part of room C, somewhat mixed with stucco ceiling decoration; another was found in the southeast corner of the atrium (**14**, covering assemblage 80; pl. 59); and a third was excavated in ala H (**77**). After the plaster had peeled off, the walls themselves would have slowly melted, slumping down to cover the floors and socles in what would eventually become a fairly even layer. By the modern period, most of the in situ collapse had been churned up by later agricultural activity, but the remnants of the original pisé covered pavements or roof collapse in several rooms. Where the archaeological deposit was

[29] For the formation of this sort of deposit see Fentress *et al.* 1981.

shallower, in the northeastern part of the house, intact pisé collapse was located mainly along the walls, with some spots left just over the pavements. In the rooms to the southwest, where the ground rose and deposits were deeper, some layers of plaster or roof collapse were still covered by a thin layer of intact wall material. Within the main part of the house, in situ pisé collapse was excavated in the following areas: along the walls of the vestibulum and fauces (**146**, in which was also found a coin of Nero, catalogue n. 61); in patches along the walls and near the floors of the atrium and room E (**8**); in room D, along the southeast side of the room (**167**); in room F (**168**); along the walls of rooms G (**74**) and H (**75**); over the roof collapse in J (**135**); in corridor M (**221**); in room P (**163**)[30]; in rooms P, M, and R (**295**); and in room Q (**276**). Roof and pisé collapse were also present in the cistern, having fallen down the draw shaft, but the cistern seems to have remained open for some time and the action of the water that accumulated in it made different layers of collapse difficult to individuate. In much of the house, then, the years around the end of the first century seem to have marked a fairly rapid period of collapse. For reasons that will become apparent below, it is likely that the lower stretches of most of the walls of the house remained at least partially visible above the ruins of their former pisé elevations.

THE GARDEN. While the house fell into ruins, both the garden, with its shrine and altar, and the monumental incarnation of room N seem to have continued to be frequented for some time longer. The final surface of the garden seems to have been bare earth or grass, as the Claudian surface probably was before it. Ceramic evidence from this surface (**349**) and from the upper destruction layers of room N (**245**) stretches into the second century A.D[31]. During this period, however, few changes seem to have been made. The only stratigraphic features associated with the use of the garden are a series of small holes filled with small stones, bone fragments, and in several cases charcoal or, possibly, ash (cuts **345, 355, 362, 363, 364, 365,** and **367**, filled by **344**, **354**, **358**, **359**, **360**, **361**, and **366,** respectively). By analogy with the interpretation of similar deposits found in the small garden of a taverna at Pompeii, these small pits may be seen as indications of ritual activity, perhaps the burials of the remains of sacrifices associated with the shrine. Interestingly, the Pompeian garden was provided with benches similar to the bench constructed in the garden of the House of Diana[32]. Only one (**344**) of the fills of these pits produced datable pottery; it seems to belong to the beginning of the second century, but it is impossible to say whether the other pits were dug around the same time or whether they span the period from the collapse of the house to the mid-2nd c. A.D. Ongoing ritual activity in this space may also be indicated by the presence of a number of lamp fragments in **349**. It is difficult to tell the extent to which the structural elements of the garden were maintained during this period, although the presence of 2nd c. pottery in a patch of pebbles and mortar (**336**) eroded from the podium of the aedicula shows that some of the structures in the garden were already slowly collapsing by that time. Ceramic evidence suggests that the garden, as a whole, was abandoned before the end of the 2nd c. A.D., as the last garden surface contained no pottery later than the middle of the 2nd c. and the material found in the various layers of collapse also bore a 2nd c. date[33]. This interpretation is also supported by the coin record, which stops with Hadrian (catalogue n. 69, found in collapse **242**).

The first part of the garden to fall apart seems to have been the decorative niche that replaced the earlier fountain. A number of decorative elements cannibalized from various Republican and Augustan structures were clustered around its base, perhaps waiting to be reused. These fragments probably represent some combination of collapse and deliberate stripping of reusable material from the niche, as the apparently deliberate assemblage was complemented by the dispersion of some of the other decorative elements and the presence of tiles and other material associated with collapse rather than spoliation. The deposit was composed of a layer of bright reddish soil (**281**) under which lay a friable brown deposit (**301**) that contained many of the heavier objects. In addition, another scatter of marble and terracotta decoration (**340**) lay under pisé collapse on the final garden surface between the niche and the enigmatic stone block to the south (pl. 9), and a layer of brown soil (**282**) containing roof-tiles as well as marble fragments had collected within the niche itself. The decorative elements in these various assemblages included opus sectile components of various

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[30] In room P, **163** covered a thin deposit (**159**) that was initially interpreted as soil accumulated during the period of abandonment, but the lack of similar layers in the other rooms of the house suggests that **159** may be another layer of *pisé* collapse or collapse associated with the cooking platform.
[31] In the 1996 excavation season, the uppermost garden surface was designated **278**. A winter's worth of precipitation substantially muddied this surface, and when excavation resumed in 1997, the layer that we removed as **278** was probably the product of the exposure of the garden surface to the elements. For this reason, **278** should be considered to equal **349**, the surface we noted in 1997. It should also be considered to equal **341** and **351**, two more products of the exposed surface's reaction to winter weather.
[32] Fulford and Wallace Hadrill 1995-1996, 95-97; 100; 104.
[33] The second-century presence in this area is supported by the similar dates of pottery fragments found in the wall collapse lying in the street outside the garden (**373**).

shapes and sizes, fragments of Campana plaques, and a small, rectangular marble statue base with multicolored stone inlays (part III: p. 191ff.). The material is somewhat eclectic, and certain elements may be related to other areas of decoration within the garden. Similarly, in the aedicula, before the collapse of the structure, were assembled a number of pieces of statuary and marble furniture probably deriving from the Claudian sanctuary, including the torso of the cult statue (**227**; see part III; pl. 60). These pieces were packed together into the cella in a haphazard manner that cannot possibly reflect their original arrangement in the garden. Their placement seems to be the result of an effort to clear out the garden and store the larger marble elements of the decoration in one place, perhaps in preparation for reuse (or even for consumption in a lime kiln). While it is thus difficult to confirm the date of the collection of this material, it is probable that the marble objects were gathered and deposited in the cella of the aedicula at some point after the garden had begun to fall apart.

In the garden, collapse seems to have been more gradual than in the house and less consistent in its composition. The layers of collapse associated with the niche (**281**, **282**, **301**) have been discussed above. Elsewhere in the garden, a number of different strata of collapse were identified. The superstructure of the staircase in the west corner of the garden seems to have been the first to go, slumping down to create a heap of rocks and brick in a yellowish, mortar-speckled soil (**270**). Onto this collapse fell the southwest wall of the garden. The pisé with which this wall was constructed seems to have varied in consistency along the length of the wall: between **270** and the area of the niche, the collapse was composed of a hard, red-orange earth containing a number of rocks (**242**), while in front of the niche the fallen pisé was friable, brownish-green and less rocky (**285**). Although the two zones of collapse were clearly different in their areas of greatest concentration, there was no clear boundary between them. Similar ambiguity was present in the south corner of the garden. There, **285/242** seemed to be covered by a friable, light brown earth (**335**) that was in turn located under a layer of much darker, rock-filled soil (**331**). All these layers seem to have formed part of the collapse of that segment of the wall, although it is possible that **331** bears some relation to a later sunken-floored structure (below). On the other side of the garden, wall **231** fell westward, toward the aedicula. Its collapse covered the fallen remains (**338**, **342**) of the flimsy Julio-Claudian wall closing room Q and formed a thick layer of dark, compact rocky soil (**275**). In the north corner of the garden, the activity of the roots of a large olive tree just outside the house disturbed **275** enough to require the notation of a separate stratum (**288**). In the middle of **288** was uncovered the head of the statue of Diana whose torso was found in the aedicula. The head could have been dropped or left on the ground during the cleanup that piled the other statuary in the aedicula, or it may have rolled from the aedicula into this area of collapse at a later date.

The collapse of the walls of the garden did not cover the entire open area. Instead, it left mounds of debris around the edges of the garden, where the walls had been (pl. 61). Over time, these piles eroded toward the lower center of the space, creating an initial layer of sediment about 20cm. thick (**337**). Even after the walls had fallen, the robbing of materials seems to have continued: a small pit was dug in the east corner of the garden, perhaps removing a basin or drain at the end of the gutter. Into the fill (**333**) of this pit had been tossed one of the several herms, now headless, that were originally part of the decorative scheme of the garden. The presence of the herm in this fill suggests that marble furnishings were still being moved around the garden after some of the walls had fallen, and in fact the aedicula, with its deposit of statuary, seems to have been the last part of the garden to collapse. The layer of yellow, friable soil (**240**) left by the destruction of its walls covered the layers of collapse on either side and the sediment in the center, as well as the marble objects left heaped within the cella. Where this layer covered **275/288**, it too had been severely disturbed by the action of the olive roots; the area of disturbance was recorded as **300**.

Ongoing activity in the garden up to the mid-2nd c. A.D. is also suggested by the datable material recovered from a number of other intrusions: the fill (**262**) of a robber trench along the line of wall **264**, contained material of the first half of the 2nd c. A.D., as did one of the fills of the three large, regular holes dug through collapse and pavement along the walls of room Q (filled with **356**, **376/377**, **405**). While the date of these intrusions seems fairly secure, their purpose is more nebulous. They seem to relate neither to a structure nor to the removal of building material, unless they simply represent energetic but failed attempts to find worked stone. Similarly, a shallow hole cutting through the secondary pavement to its rudus in the middle of room E serves no obvious purpose, although its stratigraphic position allows it to be associated more definitely with this phase. Three jagged holes in the pavement of room N can be more tentatively identified with the second-century activity, although the small size and irregular contours of these holes may identify

them as products of natural processes. Their fill also suggests the latter interpretation: all three were filled with the same material, possibly collapse (**353**). This fill extended in an irregular patch over part of the floor of room N and contained rocks, tile, and a large amount of charcoal or organic material; such a composition probably reflects the natural accumulation of debris rather than a deliberate act.

Phase VI: The Severan Reoccupation. Epigraphic material, discussed elsewhere, provides evidence for renewed interest in the much-reduced town of Cosa under Caracalla. There seems to have been an effort on the part of the imperial administration to revive some of the civic functions of the old city, an effort that is archaeologically recognizable in a number of construction activities around the forum. The House of Diana, now entirely collapsed, may have been one of the areas in which new building took place. The open storefronts of rooms C and D and the entrance to the fauces were blocked off, presenting a blank wall to the forum (**3**) and concealing the ruined state of the house behind. At the same time, a long, solid wall (**32**) was built through the collapse of the house. Only the lower courses, all in large, irregular stones, were preserved, but from these remains it was clear that the wall had been built to bond with the blocking of shop D. **30**, the southeast wall of D, was probably destroyed at this time. The foundation trench did not cut any of the pavements, however, and simply cleared debris down to the level of the old floors. The new wall ran northeast-southwest, parallel to the northwestern exterior wall of the house and 5 meters away from it, and stretched from the Severan blocking wall next to the forum portico to the Augustan blocking wall of the garden loggia (**231**). Apart from the blocking wall across C, D, and the fauces, no other structural remains are associated with **32**.

It is only possible to explain the construction of this wall if it is assumed that at least the external wall of the house (**33**) and the wall between room K and the garden (**231**) were still partially intact at the time **32** was put up. If these walls were still in place, they could have been rebuilt in conjunction with the new construction to create a long, narrow building perpendicular to the long axis of the forum (fig. 66). This building is echoed by similar Severan-period constructions along the entrance to the forum; their narrow layout and lack of any visible floor surface suggests that they functioned as granaries[34]. The new granary seems to have been the only part of the original house that was reoccupied; in the rest of the ruined building, activity in this period was limited to clearing and cannibalization of building materials. The main cistern seems to have still been open at this time, as it was used to dispose of large amounts of construction debris (tiles, pisé, stones, even window glass). Parallels for a signet ring found in the cistern point to a Severan date for this dumping[35]. The dating of the construction of the long walls to the Severan period rests on very tenuous evidence, as associated pottery of any sort is entirely absent. However, the links to similar, better-dated constructions elsewhere in the forum (below, **Forum VI**) seem to confirm the dating of this phase.

Phase VII: Agricultural Activity. After the house crumbled, some of the pisé collapse was disturbed by agricultural activity. This activity was manifested only by areas of broken pisé, softer and with smaller mortar and plaster inclusions than the in situ collapse. The disturbance was most pronounced in the areas where the collapse was deeper; where the remains of the house were closest to the surface, in the area of the service suite, it was more difficult to distinguish between collapse and different periods of agricultural activity. With few exceptions, the disturbance left the pisé collapse around the walls of rooms intact. This pattern suggests that parts of the walls themselves were still visible and that cultivation was deliberately organized according to the original spatial divisions of the house. It also suggests that the agricultural activity took place on a relatively small scale and involved plants that required only shallow tilling and small plots: the produce grown here is more likely to have been on the order of onions than of wheat. The relative chronology of this cultivation is impossible to determine, since, almost universally, the only ceramic material recovered was residual pottery from earlier periods. The only exceptions are a few sherds of African Red Slip D, found in the collapse of the aedicula (**240**), and several sherds found in a thick upper layer of sediment (**223**) that completely filled the central depression created by the collapse of the walls of the garden. Both groups of sherds point to 4th or 5th c. activity and provide the only ceramic evidence we have for the frequentation of the area after the beginning of the 3rd c. A.D. In the absence of

[34] The elongated form of granaries has much to do with the need to provide an raised floor to protect grain stores from moisture and animals. These floors were usually made of wood, a fact that might explain the total lack of a use surface associated with the interior of the Severan building in the House of Diana.

[35] Passalacqua in Fentress and Rabinowitz 1996, 236.

more specific evidence, it is difficult to determine whether the plots were all used at the same time or cultivated one after another at any point from the 4th c. A.D. to the 10th.

The organization of the cultivated patches also affected our stratigraphic recording: since the soil disturbed by cultivation was, in most cases, non-contiguous, the traces of agricultural activity were assigned different unit numbers in each area of the house. In the front of the house these were **98**, **99**, **134**, **136**, **142=246**, **145**, **160**, and **208.** In addition, **137**, in room J, covered **134** and **136**. Toward the south corner of the trench, the remains of the house were much closer to the surface, and consequently the various phases of agricultural disturbance were less clear than they were to the east. Nevertheless, it was possible to individuate several strata that seemed to have been produced by the same sort of cultivation: **130** in M, **164** in P, **284** in both M and P.

After this initial period of cultivation, there seems to have been another well-defined phase of activity (fig. 67). The dating of this phase is unclear, since the ceramic evidence in all but one of the strata associated with it is again limited to residual material, and the various features that will be discussed together here are only directly related by the fact that they all intrude on earlier stratigraphic deposits. One of the few clues to the date of this phase lies in the location of the various features: as in the previous phase, the people responsible for the features had a sense of the layout of the house that should probably be attributed to the continued presence of visible architectural remains. For this reason, it will be assumed that this period of activity happened soon after the start of cultivation in the area.

There are three primary features associated with this period of activity. The first, like the agricultural activity described above, is represented by massive disturbance in layers of collapse and tilled collapse. Unlike the previous activity, however, this disturbance was both more focused and more aggressive. In the northeastern part of the house, much of the broken pisé was removed entirely by a large, irregular cut that was filled with a soft, blackish soil containing few sherds (**143**; **152** in room F). Although the fill of this cut was different from the broken pisé in other areas, it is also possible that it represents the same sort of cultivation rather than a ditch. Another cut to the southwest seems much more clearly to have been intended to create a wide ditch. This ditch ran along the northeast wall of room G, expanding to the southeast into a wider, roughly circular cut that reopened the cistern drawshaft and part of the impluvium. The direct association of the ditch or channel with the old cistern suggests an initial use associated with water, such as drainage, irrigation, or the provision of water for livestock. Later, the ditch was used as a midden and filled in with a deposit of household refuse (**62/63**) consisting of both ceramic and organic material, including large numbers of animal bones. Although the ceramics from this deposit were not thoroughly studied, the presence of medieval sherds was noted by Enrico Cirelli. During this time, the cistern was also used for waste disposal. A terminus ante quem for the use of the cistern is provided by the disarticulated bones of a partial human skeleton found lying on a layer of sediment (**72**) within. That the cistern was still open and collecting water at this time is shown by the mineral precipitates with which the bones were encrusted; that it was no longer being frequented seems evident in the fact it was deemed an appropriate place to dispose of a body bearing signs of severe perimortal violence (part I: p. 94ff.). Calibrated radiocarbon dating of the bones has yielded a date range between A.D. 950 and 1050. Probably soon after this time, the cistern opening was sealed with a pile of large stones, into which soil gradually filtered (**61**).

The other two features associated with this phase seem both to be of a structural nature. One took the form of a large, square cut (**17**) in the disturbed collapse of room D (pl. 62). This cut reused the signinum floor of D to the northwest and the last beaten-earth floor of the room to the southeast. Because the destruction levels of the house sloped gently toward the forum, the cut grew deeper to the southwest, reaching a depth of 75cm. along its southwest side. The steeper edges of the cut -- northwest, southwest and southeast -- had been packed with a rocky fill (**18**). Despite the lack of associated postholes, it seems likely that this cut represents the foundation of a crude, sunken-floored building, perhaps a shed or hut intended for storage or animal husbandry. The hut seems to have been constructed in a combination of wood or thatch and dry stone walling, as the cut is filled by a layer of heavy collapse (**10**) too rocky to indicate an all-wood building but too thin to be the result of one constructed entirely in stone. The packing along the edges of the cut was probably meant to provide extra support for a somewhat shaky superstructure. Unfortunately, like the patches of cultivated pisé, the fill of this cut produced no datable ceramic evidence, and the building can only be dated to the period after the initial agricultural disturbance. The lack of any signs of human occupation – animal bones, pottery, metal objects – in this structure supports an association with animal husbandry or agricultural storage.

The third feature is very similar to the hut in D, although even more rudimentary. This feature was placed in the layers over the garden, next to and partially over the wall between the garden and room N. It consisted of a narrow, oblong cut (**312**) running perpendicular to the southwest wall of the garden; like the cut in D, it was packed with hard, rocky material (**322** and **323**) along three of its sides (southwest, northwest and northeast: see pl. 22) A nearby layer of rocky soil, mentioned above (**331**), may be spoil from the creation of this hut rather than in situ pisé. This cut was much shallower than the cut in D, reaching a depth of only 15-25cm. It also differed from the other cut by its association with three postholes: postholes were located at the northeast and southwest corners of the cut (**313** and **315**, filled with **314** and **316**, respectively), while a third posthole (**320**, filled with **319**) was placed along the same line as the other two but about 1meter to the northeast of the cut. Stratigraphic equivalence makes it possible that another, irregular hole or pit (**324**, filled with **318**) located slightly to the northeast, over the southeast wall of the garden, was also associated with this feature, but its relationship and potential function are entirely unclear. **318** produced ceramic material dating to the 5th c. A.D., and although the other fills contained only residual pottery, this material may be the key to the date of the larger feature. The feature itself, like the cut in D, seems to have been the foundation for a rough lean-to opening to the southeast, along the line of the postholes for the wooden supports. The fill of the cut (**311**) is a clean brown soil with no rocks, unlike the fill of the cut in D, and it seems probable that this building was constructed entirely in perishable materials. The lack of ceramic and other occupational evidence suggests that it was not a residential building, but its small size makes it difficult to interpret as an animal pen. It may have been the temporary shelter of a shepherd or a covered storage area for fodder.

There are a number of features and layers that, despite their failure to provide datable material, seem for stratigraphic or logical reasons to belong to a period after the phase of the huts and the reopening of the cistern. Most of the later features seem to be related to agricultural activity or the robbing of building material. In the front of the house, several very deep and large pits seem to have been intended for the planting of trees, probably olives. One of these pits cut deep through the mosaic floor in room C, while another cut through the disturbed pisé of the fauces and down through the backfill of its robbed doorsill. The latter cut seems to have failed as a planting pit, for it was subsequently filled entirely with very large stones in a soft brown soil matrix (**149**). Another planting pit may be represented by a circular cut in the agricultural disturbance in room J, filled by a soft brown soil containing no datable material (**138**). Other abortive attempts at tree planting may be represented by a cut in room P, filled with **166**, and a cut in room L filled with broken pieces of the pavement that the pit had been dug through (**183**). As elsewhere, the lack of dating material makes it difficult to be more precise about the absolute chronology and function of these features. The removal of cut stone blocks for reuse is another feature of this period; such activity was identified along the back wall of the house, where the stones were large, well cut, and highly visible at ground level. There, the fills (**225**, **232**, **238**) of three separate robber trenches were identified.

A different sort of feature probably dates to a point after major cultivation had ceased but before the walls of the old house had completely subsided. This feature consisted of a rectangular hole (**251**) cut into the disturbed destruction layers of K in the northwest corner of the room, using the walls themselves as the northwest and southwest sides of the cut (pl. 63). The cut reached the floor of room K, where the blows struck by a digging tool are still visible in the signinum pavement. The northeast and southeast sides of the cut were lined with stone and column fragments, and a piece of tile was placed at the angle of the walls. Into the cut was laid a body (see burial catalogue for skeletal analysis). The head rested on the piece of tile and the arms were extended along the sides, hands resting on the pelvis. The grave was filled back in with a clean brown-gray earth (**252**), and the head and foot of the grave were marked by architectural fragments. The head, a worn, low column capital, probably came from one of the columns of the loggia; the foot, a fragment of marble frieze depicting a sacrificial procession, could have been part of an Augustan altar reused in the Julio-Claudian garden. The only pieces of evidence for the date of this grave are the fact that it was dug into an area of previous agricultural disturbance and the assumption that its precise location in the corner of the room indicates that it was dug at a time when the house walls were still visible. The fill was almost perversely devoid of even the smallest piece of dating material.

The last stage in the medieval phase of activity is represented by several layers in the south corner of the house, where the remains of floors and walls were closest to the surface. Like most of the previous activity, these layers seem to be related to cultivation. In this case, however, the disturbance of collapse levels is much more violent and pays no

attention to the lines of walls. Both characteristics suggest shallow but thorough plowing at a time when the original plan of the house no longer appeared above ground level. This sort of activity was identified in room O (**131**, **158**), corridor M (**157**), and room P (also **157**, **283**). An area of somewhat broken pisé collapse in the east part of room N (**343**) may also be a product of this phase. All these layers, along with the rest of the upper part of the stratigraphy of the house, were covered by a layer of brown, moderately rocky soil (**7/222**; **133** in K) that extended over the entire area of excavation and represented the abandonment of the site during the later middle ages and early modern period.

Phase VIII: Modern Archaeological Excavations. Excavations sponsored by the American Academy in Rome began at Cosa in 1948, and thus it is not surprising that various areas of the House of Diana had already been the objects of archaeological investigation both formal and casual. Into the former category falls the excavation of the angle between the southeast wall of the house and the wall between O and I[36]. The backfill of this excavation contaminated parts of the layers covering rooms I and O: in room I, where contamination included fragments of a WWII-era bombshell, the fill was designated **81**, while in O the corresponding backfill was recorded as **79**. It seems that this cut was intended to confirm Brown's hypothesis about the internal layout of the buildings around the forum, and thus only uncovered about two meters of the external wall and a meter of the cross-wall between the southeast ala and room O. The sounding must have revealed the presence of the quarter-round molding in O and is probably the basis for Brown's statement that the original public atrium became a house in the Augustan period[37].

While the excavation around I and O was duly recorded, two other soundings do not seem to have been included in any of the site publications. Around the northwest door to room E, a fairly regular cut, clearly backfilled with **60**, seems to have been intended solely to clarify the position of the wall between this room and the atrium. Although this cut may also have been the result of an attempt to rob building material or a modern foray with a metal detector, the squarish form of the cut and the fact that the wall uncovered corresponds to wall placement on the hypothetical Atrium Building plan may argue for an archaeological origin. There also seems to have been a sounding in the east corner of room N, where we found that a precise rectangular cut descended through all three pavements and the neighboring wall; although the only explanation for this cut seems to be archaeological activity, there is no documentation of such a sounding in any of the previous Cosa publications. The cut was filled with a rocky, dark soil (**346**) that, given the absence of floor fragments, may represent natural sediment rather than deliberate backfill.

In the area of the House of Diana were a number of other traces of activity peripheral to archaeological excavation. Two of these traces were interpreted with the aid of photographs published in previous reports: two postholes originally thought to be associated with the sunken-floor building in room D were discovered to belong to a wooden fence located around the forum in the 1960s or 70s, while, thanks to an aerial photograph showing the placement of a previous spoil heap in the area of the house, a series of puzzling layers just below topsoil in the middle of the trench (**54**, **55**, **56**) were revealed to be stray piles of spoil from an earlier excavation. Other features seem to bear similar interpretations. A pair of what appear to be postholes, one to the south in the area of room E, the other further north, should probably interpreted as the result of Soprintendenza maintenance work, as should a patch of sandy gray soil (**85**) that may be the remains of cement-mixing. Naturally, the chronological framework of these activities is short enough to make fine-tuning unnecessary, but a clue to their relative chronology can be found in the fact that one of the postholes cuts into burnt red soil that may have once been a campfire (**53**), soil that in turn covered one of the backdirt piles mentioned above. By the beginning of our excavation in 1993, a thin layer of loose black topsoil (**0**) had accumulated over these recent traces and over the abandonment layers that covered the rest of the House of Diana.

Phase IX: Presentation and Conservation ,1997-1999 (Elizabeth Fentress). The excellent state of preservation of the House of Diana, and the high quality of its decoration, made it a fine candidate for restoration and presentation. The house is well-preserved, and successive conservation campaigns directed by Thomas Roby, Fernanda Cavari of the University of Siena, and Cecilia Bernardini were supervised by the successive ispettrici for the site, Gabriella Poggesi and Pamela Gamboggi. These campaigns ensured the conservation of the plaster on the standing walls, the capping of the walls themselves, and the consolidation of the mosaics.

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[36] *Cosa III*, 96 and fig. 34: here these walls were used to support the extrapolation of the plan of **AB II** onto the other buildings around the Forum.
[37] *Cosa III,* 238.

From the beginning the question of how to protect the ensemble once exposed and restored provoked much debate. There were various points of view: Thomas Roby suggested backfilling as the surest means of conservation. However, considerations of access and public enjoyment of the building seemed to rule this out. Fernanda Cavari preferred a structure to cover the whole of the building, but here the main constraint was environmental. Cosa is an exceptionally beautiful site, with ancient olive trees scattered over a gently rolling hilltop. Any structure large enough to cover the whole of the house would have inevitably clashed with the unspoiled beauty of the forum. Due to its position on top of the hill, the building would have been visible from the whole of the site. In contrast, the structure that covers the SUNY house next to the museum is relatively discrete, tucked under the hillside and forming an annex to the museum itself. But even there the disadvantages of many covering structures are visible, for the covering of the SUNY house falsifies the shape of the Roman house, and particularly its internal volumes. We thus decided to intervene in a way that would both protect the pavements and avoid unnecessary impact on the landscape itself.

The signinum pavements are, of course, the most susceptible to damage, both from the direct impact of rain and from frost-shearing. The signinum pavements in the Basilica on the forum, which were in good shape when they were exposed in 1953, are now almost entirely destroyed. It was thus decided to cover signinum pavements in the House of Diana in a semi-permanent fashion, using a layer of earth mixed with pozzolana and Stabilizer©, a product of natural origin which waterproofs the surface, impeding the growth of plants. The reddish pozzolana both improved its texture and added a color that surfaces. A 10 cm. thick covering in the mixture was applied to all the signinum floors of the building. It was then dampened and rolled to give a compact surface. In the rooms where the original floor was of beaten earth the quantity of pozzolana was much reduced, giving a more earthy aspect to the surface. This mixture was also applied in the garden, in order to reduce plant growth and the need for constant maintenance. The consolidated mosaics were covered with artificial grass, with a loose weave to ensure proper drainage and evaporation. The 'carpets' of grass can be easily removed in the summer so as to permit visitors to see the mosaics in their context. Replaced in the autumn, they protect the mosaics from rain impact and frost shearing. The house and its garden were then fenced off from the surrounding area with a low chain, supplemented by a grid fence to impede access to a fragile staircase leading down into the garden. An aluminum panel giving the plan of the house and a brief quadrilingual explanation of its history has been placed in a position overlooking the house and garden. Tourists thus have a vision of the archaeological remains which is almost exactly as they were found, with the surfaces covered where necessary for their protection.

The fragile wall plaster covering the podium of the shrine, and the delicate state of its steps, suggested that we should construct a structure that would protect the whole of the little building and enhance the visitor's perception of the garden-sanctuary. A covering was thus designed by Mark Wilson Jones (pl. 64). Our premise for the design is that new protective structures do not have to represent a qualitatively negative experience. We wanted to produce a construction that would defer to the archaeological context and yet be an object of pride in itself. In other words, it had to be discreet yet handsome. So it had to be in broad sympathy with Roman traditions of building and yet be clearly of its own time. More specifically, we chose to echo the likely envelope of the shrine by means of a simple, symmetrical pitched roof on columnar supports (pls. 2 and 7). However, the language of forms adopted has its own contemporary logic rather than one with stylistic echoes from the past. The round columns are as thin as possible, so as to avoid looking like ancient ones, and their simple capitals reflect the need for an adequate surface for fixing bolts through into the transverse beams. The rest of the structure was left open in order to minimize the visual impact and to avoid condensation.

FORUM VI
(WILLIAM BOWDEN, 1993)

Objectives. The choice of a trench in the area of **Atrium Building II**, to the southwest of the main entrance to the forum, was based on the presence of an apparently late structure which occupies part of the road leading into the forum, and the quantities of late African Red Slip found in the building on the other side of the street during the 1953-1954 excavations.

Dimensions. The trench as laid out covered 10 x 20m., to the southwest of the late wall and fronting onto the forum. Little of this was excavated to the Roman floor level, however, except for a small area in the southern corner of the trench. Although the evidence for the Roman period in this area is rather problematic, it seems worth presenting what there was of it.

Stratigraphy

PHASE I. The Republican plan of the building remains less than clear (fig. 68). The dimensions of the tabernae and fauces seem consistent with those in **AB I** and **AB V**. Wall **32**, parallel to the rear wall of the eastern taberna, may be interpreted as the support for a staircase at the rear of the shop. Both tabernae were paved with rustic floors of small cubic tiles. The plan of the atrium does not emerge clearly from the few walls uncovered.

To the southwest **AB II** seems to have been abutted by a new structure, possibly constructed in its garden. All outer walls of the subsequent building are secondary. A wall, **42**, was built against the southwest outer wall of **AB II**, **54**, with a parallel wall, **40**, 3.5 meters to the southwest. The new covered space seems to have had some functional purpose: two small rooms were inserted at its end, with rustic pavements and quarter-round mouldings (**30, 34, 38, 39, 17/12. 13/15**) covered with traces of hydraulic plaster. We may suggest a bathing facility, on analogy with the structure in the garden of the House of Diana. There is no evidence for the date of this addition.

Within **AB II** a number of blocking walls were added: we may include **48**, partially blocking the fauces, and possibly **45** and **46**.

PHASE 2. The next phase represents a substantial reworking of the entire building, eliminating both the tabernae and any domestic use (fig. 69). The openings into the forum were all blocked by a new wall, **53**. Subsequently, the internal walls were replaced with a series of long, parallel walls, **36**, **43** and **47**, whose construction trenches cut the floor levels of the tabernae, or cover the original pavements. No construction trenches are visible in the pisé destruction levels of the original building. This may suggest that they were trench-built, as it seems difficult to imagine the pisé accumulating after their construction. If we assume that the northeast wall of the original building, fronting the entrance to the forum, was retained, the structure thus created seems to have consisted of three long parallel halls, 3.5, 4.3 and 4.5m. wide. It is not at all clear what floor surface relates to them: possibly a beaten earth compaction lying over the level of fallen pisé, or else with a wooden floor as is suggested in the case of the similar wall in the House of Diana. This would explain why the walls of **AB II** were left standing 50cm. above the floor levels, clearly impossible if the original floors were used in the new building. A small section of such a compacted clay and mortar floor, **34**, was excavated in the eastern corner of the trench, covering the earlier plaster and tile floors of the taberna. A wooden floor over the pisé layer would also explain why a thick layer of tiles, **16**, clearly derived from the collapse of a roof, covered the layer of pisé deriving from the collapse of the walls. The entrance(s) to this structure must have lain to the northwest, along street O. It may perhaps be interpreted as a granary or other storage space.

The date of these modifications is uncertain, but if we are right in assuming that the floor lay above the accumulated pisé, the presence of ARS forms 8 and 9 in these layers gives it a terminus post quem of the beginning of the 2nd c. A.D. In the destruction layers, several fragments of ARS 'C' wares certainly suggest an occupation in the 3rd c., and in the absence of any material at all from the second half of the 2nd c. A.D., the best guess for the construction of the building would place it in the 3rd c. This fits well with the blocking of the entrances to the forum with a continuous wall, which, as we have seen in the case of **AB V**, seems to be part of a single operation masking the ruined buildings of the forum area from the plaza itself.

PHASE 3. The last activity on the site was the replacement of the two or three long halls with a new building, which still stands over 1.5m. high (fig. 70). This consisted of two long parallel walls, of mortared irregularly-coursed stone, butting the northwestern opening of the arched entrance to the forum and incorporating it as an entrance. The space thus created was divided in two roughly in the middle, resulting in two long narrow rooms. Only a small island of stratigraphy measuring 2 x 1.5m. remained within the building: the rest had been entirely excavated in 1973. There the construction trench, **51**, of wall **26** was excavated. With a depth of 60cm. and a width of 1.35m., it was just twice the width of the wall, which was built against its southwest side. The trench cut the layers of accumulated clay deriving from the destruction of **AB II**, **52**, and the presence of an unidentified sherd of ARS 'C' in its fill seems to leave no doubt of a 3rd c. date. The destruction layer of the building, **49**, lay directly on top of **52**, leaving no trace of a floor surface. Again,

we must tentatively suggest a wooden floor for the building, which would be consistent with the fact that the earlier walls were left standing to 50cm. However, there are no traces in the standing walls for supports for such a floor, and we must assume it was carried on wooden chocks or some other perishable structure. The dimensions of the building again suggest storage, possibly a granary. It was interpreted by Brown as a barn for sheep, but its shape seems ill-adapted for the purpose.

No later activities were recorded on the site, and the only pottery later than the third century is a fragment of sgraffito from topsoil.

THE STRUCTURES ON THE BASILICA
(TERESA CLAY 1991, 1992)

Objectives. In 1991 the Roman Basilica, excavated in 1951 and now completely overgrown, was cleared, and the late structures on it were studied and drawn. Cleaning around the ovens revealed some intact stratigraphy, and this was excavated in order to date the structure. In 1992 the walls of the 'baker's house' in the south corner were cleaned and studied.

Stratigraphy

THE HOUSES. The walls, originally taken as part of a single structure, proved to have a number of different phases. Wall **1**, along the southwest edge of the Basilica, may originally have delimited a yard in the cleared structure, in which the ovens would be built. It was built of roughly coursed stones in mortar, with occasional pieces of tile, and was interrupted by a door. The construction of walls **2** and **3** created an enclosed space, room B, and, possibly, a further room to the southwest, C (wall **8** continues the line of **2** southeast of **1**, and is of identical construction). A door opens in the north corner of room B. All the walls of room B were apparently plastered during this phase. In a third phase room A was added on to the northwest of room B. This was delimited by walls **2**, **4** and **5**, as well as the continuation of wall **1**. A small door in **4** led out onto the oven yard, which was blocked, with **6**, in a subsequent phase. Another blocked door, **7**, is found at the southwest end of wall **2**, which seems to have been replaced with a larger door at the northeast end, possibly at the time of the construction of room A. This door had a clear posthole cut into the Basilica pavement. A final phase is represented by the construction of wall **9** along wall **1**, probably forming a new room, D, to the northwest of room C.

THE OVENS. Over the plaster floor of the Basilica a thin, compacted layer of earth (**3**) represents an initial abandonment of the structure, but does not contain any datable material, except for the marble finger of a statue. Over this were two compacted layers of makeup (**1** and **2**) containing substantial quantities of charcoal and some pottery, running under both ovens. The pottery included fragments of a 'spatheon' amphora, as well as ARS forms 99 and 103, dating it securely to the 6th c.

The earlier, and best-preserved oven (**4**, pl. 18) was constructed on a mortared stone foundation, butting the southeast wall of the Basilica. It stands 40cm. high, with a large flue in the center sloping up towards the baking platform. This platform was constructed of three or four courses of tile, with a circular plan, and traces of the springing of a stone vault against the Basilica wall. The second oven, **5**, was significantly larger and less well preserved: there is no trace of the brick platform, and only the flue survives as evidence that it was an oven. It is inserted between **4** and the southern corner of the Basilica. The construction of the second oven when the first was still well preserved suggests a need to increase the baking capacity, possibly due to an increase in whatever population it was serving.

THE CHURCH. The church was inserted between the northeast wall of the Basilica and the piers of the 1st c. A.D. Odeon (fig. 73; pl. 16). It is uncertain whether this wall had already collapsed, and had to be replaced, as no replacement wall is visible. The argument hangs on the relationship between the cemetery northeast of the church and the collapsed Basilica wall (part I: p. 75ff.).

The foundations of the church were apparently built directly onto the Basilica pavement, which was cut through at this point. The 1951 excavation would have cut away any construction trench cut into later layers. The apse foundation (**1**) was faced on both sides with medium limestone blocks, with a fill of smaller stones and a few tiles in a gray mortar

with large white lumps. No more than two courses survived at any point. The 'west' (northwest) wall was of similar construction (**5**). In the middle lay a massive, reused threshold block of white limestone.

The pavement (**3**) was of stones, made up with earth and redeposited construction material (**4**). At the time of the 1951 excavation it was preserved only near the altar, and around the threshold block, both of which it butts. The altar itself is almost square, measuring 0.90 x 0.95m. (pl. 17). Its first course is faced with dressed limestone blocks, while the three upper courses have tile facing with a few limestone blocks. The fill is of unshaped blocks and tile in a thickly applied gray mortar.

The church was approached from the 'west' end, where a flight of steps runs down from the Basilica. At the top of these, two missing limestone blocks may suggest gateposts. Here there are also traces of the rebuilding of the walls of the Basilica, which must have been destroyed at this point. It also is very likely that the window set into the tribune wall was cut at this time, in order to give some light to the church.

At the head of the steps was found a rough paving of stone on an earth makeup (**6**). It seems possible that this paving was in fact a makeup for a plaster surface, for on one of Brown's photographs such a surface is visible, apparently lapping against the west wall of the church.

IX D North

(Teresa Clay, 1991, and Joanna Hambly, 1992)

Objectives. The cleaning of the Basilica in 1991 and the discovery that the structures on it were all Byzantine led us to ask the extent of this occupation, which clearly depended on the substantial road running up from the northeast gate, the 'Porta Romana'. Further, 1951 excavations in the trench 'isolating' the Basilica (ENE 5, 6, 7) had revealed apparently late walls in this area. The trench was thus started in 1991, and its excavation continued in 1992.

Dimensions. The trench measured roughly 10 x 13m., but was rather irregular in shape: an olive tree occupied the center, and another two the northeast edge. Further, the central part of the trench was only excavated down to the collapse of the Basilica wall: at the suggestion of Dr. Ciampoltrini of the Soprintendenza this was conserved. In no area was bedrock reached, although the cleaning of the 'isolation trench' and the features associated with it gave us a clear idea of the stratigraphy.

Stratigraphy. The earliest features on the site were the walls of two Republican houses (**2** and **35**), separated by what is probably a road running northeast - southwest (this road appears to have been confirmed by the excavation of the sample trench **P7**). Their walls were of roughly coursed stone and earth, founded on the bedrock without construction trenches (fig. 74). To the northeast of **2** a small patch of surface was uncovered (**16**), which was probably contemporary with the use of the building.

The earlier houses were destroyed during the construction of the Basilica, leaving the pisé de terre deriving from wall **2** in a large heap (**25**). The construction trench for the Tribune of the Basilica was 50cm. wider than the wall, and was filled with stone footings, whose mortar laps onto wall **2** (**36, 37**). A similar construction trench for the Basilica cut wall **35** (**41**).

During the later Republican period and the Augustan occupation the area remained open, becoming a dumping ground during the first quarter of the 2nd c. A.D., when a rich midden deposit, **17**, accumulated. This consisted of gray silt containing discrete lenses of other material (sand, clay) and huge quantities of amphorae, fine wares, glass, bronze and iron objects. The deposit appears to be a general rubbish tip of household and destruction debris. It is not, however, associated with anything structural in the trench.

The third century saw major rebuilding in the area of the Basilica, with the reconstruction of the Odeon under Maximinus (A.D. 232) and the construction of the corner buttresses supporting the Curia. In the excavated area, two adjoining walls, **4** and **40** were constructed (fig. 75). These were well built and mortared, 0.45m. wide, faced on both sides and oriented northeast-southwest on the alignment of the Roman city. Wall **40** is slightly off-alignment, however, and seems to run slightly north so as to avoid the Curia buttress: it seems logical to suppose that it post-dates it. It is probable that these are house walls, and that the excavated area lies outside the house. **3**, in unmortared stone, takes up

the line of the pre-Basilica **2**, butting the corner of the building and blocking the line of the earlier road. Taken together, these walls seem to enclose a yard, surfaced with a compacted layer of earth containing mortar and crushed stone, **12**. A fragment of third-century pottery, ARS form 32, dates the whole to the 3rd c.

These features should probably be associated with Richardson's 'Level III': (8/6/1951) "Excavation of tribune vault reveals firm rammed earth floor over a fill of debris through and just within doorway. This level (II) followed outside and found to continue as rammed earth floor..." (26/6/1951) "Directly beneath level II appeared the floor of Level III, in part (SE) of rammed earth in part (NE of irregular rough cement of broken stone and friable mortar). To this floor corresponded a rough rubblework sill across the archway of the tribune vault. At this level a drainpipe traversing the NE wall of the enclosure (**3**) discharged into a diagonal channel that ended in a box-like depression before tribune vault arch. In angle of tribune and Basilica square stone manger set in cement floor. This arrangement evidently involved use of trib. vault as stable." Richardson is evidently correct in interpreting the whole ensemble as an area for the enclosure of animals, and other apparently agricultural activities.

The area was apparently abandoned by the end of the 3rd c.: no 4th or 5th c. pottery was found there, nor are there any later domestic features within the area of the excavation. !smfig:77!The next surface, corresponding perhaps to Richardson's 'Level II', was that of a small cemetery, excavated only in the northwestern sector of the trench, where it was not covered by the collapse of the Basilica wall (fig. 77). This consisted of six graves: a seventh skull was visible in section, while a 'superficial burial' was recorded by Richardson near the tribune vault. A summary table of these burials is found in part I, p. 79. The cemetery appears to have been bounded to the east by a wall running diagonally to the line of the trench, **11**. Extensively root-damaged, the wall was preserved over 3.70m. It was 0.85m. wide, and faced on both sides. The core was of unmortared rubble stone. This appears to have separated the cemetery from a road running diagonally across the site, surfaced with small rounded stones tightly packed in a pale gray sandy matrix. The surface of the road (**15**) was slightly cambered, and its makeup (**38**) was up to 30cm. deep in the center, tapering out to 7m. on both sides. The western edge was well defined by a kerb of closely set stone and broken tile. The eastern edge lay under the section, giving it a width of at least 5m. It is thus impossible to tell whether it was enclosed on its eastern edge by a wall similar to that found in trench **Forum II**.

With the exception of a small metal ornament, no contemporary finds were associated with any of these features. It is thus impossible to be certain of their date, and we must proceed by association: the cemetery with the 6th c. church lying just above it, and the road with the 6th c. ramp running up through the Curia.

The collapse of the wall of the Basilica/Odeon, which must have been used by the church, occurred at sometime after the abandonment of the cemetery. It fell outward from the platform, and its collapse is relatively coherent in the area of the trench, where the string courses of bricks can be easily traced (**5**b: pl. 65 and fig. 77).

Lapping over the collapse of the wall was a very compacted yellowy-brown surface, **8**, containing large quantities of stone, mortar and tile, suggesting a heavily trampled exterior surface such as a yard or sheep-pen. 12th and 13th c. pottery was found in these layers, but there is some possibility of contamination from the layers above.

Modern layers included **9**, composed of a series of dumps of tile, stone and mortar and much mixed debris, increasing gradually in depth downslope towards the northeast. Traces of a track, path or barrow-run (**7**) and a compact mortar spread just under topsoil (**6,10**) are probably connected with the 1951 excavations, as were the successive tips of earth.

The Sample Trenches
(General direction: Nicholas Churchill, 1991; Miranda Richardson, 1992)

J4 (FIG. 78)
(DANJA FOSS, 1992)

The earliest phase is represented by two postholes (**8** and **10**) 30cm. in diameter cut into the bedrock. The interpretation of these is uncertain: they may have formed supports for wooden buildings of the early Republican period, or have been used for scaffolding for the construction of the late-third/early second century houses. The corner of the insula was revealed by the construction trenches (**5** and **6**), also cut into bedrock, although no walls were found. The floor consisted

of leveled bedrock, leveled by an earth surface, **4**. Over this lay a series of tips of Augustan date. The first of these, **3**, contained decomposed pisé de terre, along with much household refuse, bones, shell, mortar, fishhooks and nails. Over it **2** contained similar material, with a certain quantity of stones. These were covered by black topsoil, **1**.

K5 (FIG. 79)
(NICHOLAS CHURCHILL, 1991)

Lying under a shallow deposit of topsoil was found a stretch of street 5, **4**, and what is best interpreted as an associated sidewalk, **3**. The road was visible over 0.70m., well paved, with one stone protruding from the pavement which may have been a stepping stone associated with the sidewalk, although such a feature does not appear to be present anywhere else at Cosa. The sidewalk presents a course of stone, faced towards the street, with a surface of smooth earth and stones, **5**. Over this, a second surface, **2**, is rougher, with a number of stones protruding from it. Arretine pottery was present only in topsoil. Also from topsoil is a small piece of archaic Etruscan pottery, an olla a rete, typical of burials, which may suggest the existence of a cemetery somewhere in the vicinity.

L4 (FIG. 80)
(TITUS BICKNELL, 1992)

The earliest context is a straight cut in bedrock, **10**, running at 45 degrees to the Roman grid, directly north-south. It appears to be edged with at least one faced block, and may represent the wall of some construction. Forming a corner with it towards its northern end was another cut, not clearly visible beneath the Roman wall. Over these lay a clean red layer, **7**/**11**, containing four sherds of impasto pottery.

Over this surface were built the Roman walls, **4** and **5**, of faced, regularly coursed limestone blocks, standing 60cm. high. Outside this wall **9** may represent the makeup for street: although very similar to **7**/**11**, it contains a sherd of black glaze pottery and appears to butt the Roman wall, so it is probably redeposited. It is surfaced with yellowy gravel, **8**, 4cm. thick and very compact. There is no sign of paving blocks. Within the building **6**, of red earth with pottery and charcoal, probably represents a floor or garden level. Over it a midden or occupation layer, **5**, contains a certain amount of bones and household refuse. This is covered by **2**, containing much clay and probably deriving from collapsed pisé de terre. Outside the building a midden, **3**, accumulated over the road surface, and the whole was covered by topsoil. No Arretine pottery was found in the trench, which suggests that this insula was not reoccupied.

M3 (FIG. 81)
(NANCY PROCTOR, 1992)

The earliest layer in the trench, **9**, was bright red, identical to the paleosoil of this hill but for a few fragments of pottery: it was probably redeposited during construction activities. Over it, **8** was very similar but contained a substantial amount of charcoal, particularly in the east corner of the trench where there may have been a hearth. Both layers contain sherds of possibly archaic impasto, as well as black glaze. The wall of the insula, **4**, was built over **8**: this was faced only on one side, and may have constituted a foundation for the wall of the building. Packed against it was a deposit of red-brown clay, **7**, with gravel, stones, bone and a little pottery. Over it, a compaction, **6**, may represent a yard surface. The destruction sequence, all of which lies over the wall, contains a certain amount of midden refuse, as well as stones (**5**) and decomposed pisé de terre (**3**). The last of these (**2**) contains a large amount of stones, which may derive from clearing or leveling upslope, in the area of **IV G**. Arretine pottery was found only in the destruction material, which suggests that the area did not form part of the Augustan settlement.

M6 (FIG. 82)
(ARTHUR COOKE, 1992)

A construction trench, **8** (fill **9**), for a wall, **5**, was cut into the dark red Cosa subsoil, **7**. Perpendicular to it another cut, **10** (fill **11**) probably represents the construction trench for a wall lying under the section. A compacted layer, **6**, probably represents a surface associated with the building, although as it contains third century pottery it is clearly not the earliest surface, which may have been removed during the reconstruction of the 3rd c. A.D. This surface covered by a midden deposit, **2**, dated to the 3rd c. or later by a coin of Elagabal (catalogue no. 79). From this layer a trench was cut to rob wall **5** (**4**, fill **3**). The whole was covered by topsoil, **1**.

M7
(PAUL SMITH, 1992)

The excavation of this trench was abandoned in view of the depth and stoniness of the destruction deposit: the material recovered dated to the 3rd c. A.D.

N4 (FIG. 83)
(JUSTIN RUNESTAD 1992)

A shallow cut, **9**, filled with what may be a lens of sandy subsoil, **10**, appears to cut the natural subsoil of the hill **11**. Over these, **7** may be a further layer of subsoil or, more likely, a makeup derived from the subsoil for the construction of the building. Over this were built the dry-stone walls of the insula, **4** and **5**, with a clean layer of earth, **3**, representing a yard or garden surface. Several sherds of archaic impasto in this layer, including one with a finger-impressed cordon, suggest the presence of an archaic cemetery or settlement in this area. Over it, and the walls, lies a relatively clean layer of decomposed pisé de terre, **2**, with wall plaster fragments as well as a little household rubbish. Two sherds of Arretine pottery in this destruction deposit suggest that this area was not included in the Augustan settlement. It was cut by a stone filled pit, (**8**, fill **6**), which remains difficult to interpret. Both were covered by topsoil, **1**.

N5 (FIG. 84)
(NICHOLAS CHURCHILL, 1991)

The depth of deposit prevented the excavation of this trench below 1m. The stratigraphy consisted entirely of destruction deposits, lying against the two walls at the corner of the insula, **8** and **9** with, between them, a curious square stone foundation, **11**. In **8**, a stretch of tiles may indicated some kind of sill, rather than a leveling course, but we have no way of knowing how far it lay above the floor. The lowest destruction deposit (**7**) consisted of a thick layer of decomposed pisé de terre, dated by a sherd of late italic pottery to the period after A.D. 50. It is, however, likely that the building was not abandoned until late in the 1st c. A.D., for the sequence of tips covering the walls (**2**, **3**, **4**, **5**, **6**) , composed of alternating construction debris and rich midden deposits, were all dated to the period A.D. 80 - 130 by ARS form Hayes 8A : in the uppermost tip a coin of Hadrian confirms this date (catalogue n. 67). Sherds of window glass in the construction material may derive from the city baths on the other side of the street.

N7 (FIG. 85)
(FIONA MACDONALD, 1992)

The earliest construction phase is represented by the northeast wall of the insula, **3**, and, running alongside it, a drain inside the building **10**. This was over 50cm. deep (it was not bottomed), carefully built and plaster-lined. It was subsequently filled with clean red earth (**9**), which may imply that the building was abandoned temporarily, possibly in the period after 70 B.C., although there is no direct evidence for this. A new construction period entailed the building of two walls, **7** and **8**, whose construction trench (**11**, fill **12**) cut **9**. The room was then floored with a smooth, compact

beaten earth floor, 4cm. thick, **6**, over which was found a layer of occupation debris, **5**. **6** contained a number of sherds dating to the 1st c. A.D. (Amphorae Peacock form 12, African cooking wares), so that if the reconstruction is Augustan the floor is somewhat later. Over these a layer of tumble, **2**, represents the collapse of the walls: it is dated by a fragment of ARS Hayes form 8A to the period after A.D. 80. Lying on top of it, two fragments of 'forum ware' suggest sporadic occupation of the area in the 9th or 10th c. It should be noted that there is no trace in this trench of street **7**, although given the slight uncertainty attendant on laying out these trenches, this does not demonstrate that it did not exist.

O4 (FIG. 86)
(RUTH VAN DYKE 1991)

On the southeast side of the trench a wall, **4**, was preserved one course high, with a large square block visible in the east corner. A second possible wall, **5**, was visible in the north corner, with what appears to have been a door between the two. Their foundations were cut directly into bedrock, which was apparently leveled with a layer of earth, **3**, to form a rough surface prior to the building. This, and the foundations of wall **4**, were directly covered by **2**, which was a reddish soil with mortar and tile fragments, poorly compacted. This may have been a makeup for a floor, but was not itself a surface, and no surface was present. A sherd of Arretine pottery suggests a date between 35 B.C. and A.D. 50 for the formation of the layer, although the building itself is almost certainly Republican: it may be that earlier layers had eroded away after the building was abandoned, and that **2** represents a small accumulation of material in this part of the site during the period of the Augustan settlement. Southeast of wall **4** a large street cobble overlies **3**, covered by **5**, a layer very similar and possibly equal to **2**. Over both lay **1**, possibly a colluvial deposit from the Arx, which contained a sherd of 6th c. pottery. This was covered by topsoil.

O4.5 (FIG. 87)
(JAMES DUFF, 1992)

Excavation was not completed to Republican construction levels, because of the depth of deposit. The Republican wall of the insula was found partially destroyed, and covered with a series of tips of destruction material (**35, 34, 33, 32, 31**). The lowest of these, **35**, was cut by a trench along wall **26**, probably to rob out the facing stones (**36**, fill **37**). These brought the ground level almost up to that of the destroyed wall. From this level a new building was constructed, with a side wall, **3**, of mortared stones, 1.20 meters southeast of that of the Republican building: this obviously suggests a widening of the road. A door led from this road to the street, under whose threshold ran a drain, composed of a length of terracotta piping protected with broken amphorae and thick mortar (**28, 25**, cut **29**). Over this drain, the ground outside of the building was leveled up by tips of material (**27, 30**), and surfaced with a thick layer of hard-packed red earth and stones, **23**. Inside the building a party wall of pisé de terre, **11**, ran at right angles to **3**, just inside the door. Both faces of this thin wall were plastered, and its southwest face may have been reinforced by tiles, as a single vertical tile **12**, suggests. The floor of the entrance corridor was apparently of beaten earth, **18**. To the northeast of this was a floor of hydraulic plaster, with quarter-round mouldings made up with earth **16**, **17**. The drain may have led from this room, but we cannot be sure. The whole building is almost certainly part of the Augustan settlement, although **27** contained two sherds of late Italic pottery, which may represent contamination from a cut at a higher level.

In a subsequent phase the street door was blocked with mortared stones and tiles, **4**. At the same time street O was apparently resurfaced, with dark earth and stones (**22**). This can be dated to the end of the 1st c. A.D. by sherds of ARS form Hayes 8A. A subsequent surface or accumulation, **19**, contained a large amount of occupation debris, and was cut by a shallow channel running parallel to the wall. This lies 0.9 meters from the wall, and may represent a crude gutter to carry water from the eaves. The fill of this gutter, **20** and **24**, was fairly clean, and was covered by a final surface, **8**. Both **8** and **19** contained no material later than A.D. 130. This was also true of the destruction layers, (**18, 15, 14, 13, 5, 2**) which contained large amounts of white wall plaster.

O5
(NICHOLAS CHURCHILL, 1991)

A plaster floor, **4**, which covered the whole trench, was covered with a tile fall from the roof of the building, **3**, containing abundant white wall plaster. This was covered by a 20cm.-thick layer of clean compact earth deriving from collapsed pisé de terre, **2**, sealed with a spread of wall plaster. The presence in the pisé layer of African cooking wares (Hayes forms 23 and 197) dates this collapse somewhere in the second half of the 1st c. A.D., or later. Over the destruction layers, a small midden deposit contained a coin of Gordian III (catalogue no. 80), while ARS form Hayes 50A, as well as unidentified fragments of ARS 'C' wares, found in topsoil confirms the use of this area for rubbish tipping in the 3rd c.

O8
(NICHOLAS CHURCHILL, 1991)

The trench contained a standing wall, **2**, visible before the excavation. This proved to be the northeast wall of a Republican building, along a possible street frontage, 'street **7**'. It rose at least a meter above the level of the street, and on its inside face was flanked by a drain, **7**. This was well-built, plaster-lined and 40 cm. deep, in all very similar to that found in trench N7. Its construction trench (**13**, fill **14**) was cut into a compact red layer, **8**, probably deriving from the subsoil of the hill, but piled up against the terrace wall at the time the building was constructed. The drain was then covered with tiles, and the room floored with beaten earth, **10**, 6cm. thick. It contained thirteen sherds of 2nd – 1st c. black glaze, and no later pottery, so the whole is presumably a Republican structure.

A new phase is signaled by the silting up of the drain (**6**) and the accumulation of a midden deposit covering the floor (**4**). This contained a small group of coins, dating from the Republican Period through the reign of Titus (catalogue nn. 17, 18, 23, 26, 37, 49), as well as sherds of 1st c. A.D. African cooking wares (Hayes forms 23 and 197). It is not clear how long the building was occupied, for **4** could be a midden accumulated during the life of the building, and the filling of the drain does not, of course, imply the abandonment of the building - although the fact that all the material within it was Republican suggests that it had already gone out of use by the time of the Augustan settlement. There is no compaction on top of the first century midden, although this may have eroded away.. Outside the wall, along the line of street 8, the lowest excavated layer, **9**, contained a certain amount of destruction debris, as well as a sherd of ARS 'C' fabric (A.D. 230+), and coins of Commodus and Septimius Severus (catalogue nos 75, 77).. This seems to suggest that the building collapsed some time in the third century, although the deposit may not relate to the building itself, but to some nearby structure.

P4.5 (FIG. 88)
(ROSSELLA BASSO, CATHERINE SCHWARTZ, 1992)

The test pit lay half way along the insula on street P between roads **4** and **5**. Two walls of the insula lay along the southwest and southeast edges of the trench, **4** and **5**. Of these, **5** was of dry stone, of typically Republican construction, while **4** was of well mortared stone, with a foundation offset at the level of the crest of **5**, which it abuts. The makeups below this offset contained Arretine pottery, and thus probably date to the Augustan settlement. The building thus seems to have been rebuilt in the Augustan period. It was floored with compacted beaten earth spread with gravel, **6**, which may represent a yard surface. Over this lay two destruction layers, **3** and **2**, containing decayed pisé, some stones and mortar. The presence of a sherd of ARS form Hayes 8A in the upper layer suggests that the building collapsed between the end of the 1st c. A.D. and the middle of the 2nd.

P5 (FIG. 89)
(NICHOLAS CHURCHILL, 1991)

The walls of the building were of mortared stone (wall **26**) with large fragments of roof tile (wall **25**). They appear to have been contemporary: **25** being an external wall of the building, and **26** an internal wall, with a space for a door between it and **26**. The northeast end of **25** was apparently destroyed by later disturbance. In the southwestern portion or the trench a thick layer of clay, **22** appears to have been an original floor: it was covered by a thick deposit of mortar, **15** which is possibly to be interpreted as destruction debris. The presence of Arretine pottery thorough out this sequence suggests that the building was rebuilt during the Augustan period: we have no trace of the earlier, Republican building. Although the subsequent layers appear to have been heavily disturbed, no pottery later than the African cooking wares Hayes forms 23 and 197 was found in the trench, which suggests that it was abandoned in the second half of the 1st c. A.D.

The rest of the sequence was misinterpreted during excavation, and the following interpretation is being written three years later, on the basis of plans and photographs, and is based as much on our subsequent knowledge of the site as on this evidence. Under topsoil a shallow cut, **5**, was identified, just over a meter wide, appearing to turn east at its southern end, **10**. The cut was lined by postholes (**3**, **4**, **6**, **7**, **9**), to which one could add **19**, packed with cobbles and lying in the same alignment, but only identified further down. Inside this limit lay a compacted surface **8**. A second compacted surface, **23**, lay under **8,** and some of the postholes were only recognized at this layer, including two possible internal posts, **20** and **21**, not aligned with the first group. The fact that the alignment of these two surfaces, the cut, and the postholes remains constant, at a diagonal across the trench, as well as the consistent disturbance of the Roman remains along the same alignment, suggests that they all form part of the same feature. Interpreted during excavation as a field boundary, the right angles formed by **10** and the posthole **9** suggest instead the presence of a timber-framed building, which may have been initially cut down through the Roman destruction levels, then framed, and then floored with beaten earth and subsequently re-floored. This would explain why most of the postholes in **13** appear to preserve the shape of the square posts, rather than the post packing: **13** would have been built up around them, although they were cut from further down. It is not at all clear why the cuts, **5** and **10** appear so much shallower than the rest of the building, and they may represent a late gutter around the building designed to take the rain off the roof: traces of sand at the bottom of the cuts, visible in the photographs of the sections, seem to support this hypothesis. No dating material was found whatsoever, but it seems reasonable to suggest that this possible building was contemporary with the huts in **Forum V** and **EH VII**, and to date it in the medieval period.

P8 (FIG. 90)
(MATILDA WEBB AND MADHAVI MENON, 1993)

P8 consisted of two trenches, at right angles to one another, in order to investigate the presumed road intersection whose corner was occupied by an olive tree. In the northern trench a well preserved plaster floor (**3**) was delimited by a very vague line of foundations, **5**, which consisted mainly of cut bedrock. North of this line, along what must have been street **8**, the bedrock was smoothed, and covered by a compact layer of beaten earth, **2**. This surface might be interpreted as a resurfacing of the road, and the presence of a sherd of ARS form Hayes 8A dates it between the end of the1st c. A.D. and the middle of the 2nd. A sherd of 7th c. pottery was found in topsoil.
In the southern trench a plaster-lined vat 1m. deep and 1.10m. in diameter lay beside a cut-bedrock foundation very similar to that in the northern trench. It is probable that the vat lay in the same room as the plaster floor, but the trenches were too small to be sure. Outside the wall the presumed road surface of street P was no better made than that of street **8**, but there was no evidence of building. Again, the floor and the wall were covered by tumble (**9**) and a thick deposit of pisé de terre, which filled the vat, covering a broken Dressel 1C amphora, which dates the abandonment of the structure to the 1st c. B.C.

Q5 (FIG. 91)
(NICHOLAS CHURCHILL, 1992)

In this sector the only surviving structure were terrace walls on the northeast and southeast edges of the trench. The southeast wall, the only one entirely visible, was faced only on the outside. Inside, two make ups brought up the level, (**3, 2**) and the house was presumably constructed above them. There was no trace of this, however, and its destruction deposits were probably removed by erosion or robbing. The date of the terrace foundations is apparently 2nd c. B.C.: both contain black glaze and Greco-Italic amphorae. Above them a layer of apparently colluvial deposit, **1**, contained a strap handle from a medieval jug, probably 11th c. or later.

R6 (FIG. 92)
(ADAM RABINOWITZ, 1992)

The earliest features in the trench consisted of a wall on the northwest edge and a cut running parallel to it along the south east edge. The wall, **5**, was of dry stone, built with a construction trench filled with red soil, **10**. In it opened a door marked by a probable doorjamb of tile, and a trampled mortar and pebble surface leading in to the building, **8**. The cut in bedrock, **11**, is difficult to interpret: rather irregular, it may have been the foundation trench for an outer wall or, perhaps, a portico. The early street drains at Cosa do not resemble this, and there is no trace of a plaster lining, although there was much broken-up mortar in the fill. In the east corner of the trench, within the cut, a great concentration of stones and mortar (**6**) may mark the foundation for a column, but this is highly speculative, and if there were a colonnade it would have lain very close to the wall. Between the wall and the trench lay a plaster floor, very worn in patches (**9**), which covered **8**, and may simply represent the original plaster skim which had worn away in the area of the door. This phase may be dated to the Republican period, on the basis of the black-glazed pottery and the absence of any later material.

Lying over the filled trench and the floor was a destruction layer, **4**, consisting of much stone, mortar, tile and pottery. This was covered by a midden deposit, **3**, and a further tip of stones, **2**. All of this material was Augustan, suggesting the use of the area as a dump in that period.

R7 (FIG. 93)
(HETTIE VENEZIANO, 1992)

The east wall of the building is indicated by an 80cm. deep, straight cut in bedrock along the southeast edge of the trench. There may have been a door in this wall, for half of it lies 40cm. below the other half, and traces of a posthole were found at the junction. The floor was also composed of cut bedrock, with a thin layer of beaten earth, **4**, above it; it lay 30cm. under the supposed doorsill. Above this a much thicker layer of decayed pisé, **3**, seems to mark the destruction of the building. It was covered by tumbled rocks in a dark brown soil, **2**, not very different from the topsoil. No ceramic material later than the Republican period was found in the trench.