

Excavations at Villa Magna 2007

Elizabeth Fentress - Corisande Fenwick - Caroline Goodson - Ann Kuttner - Marco Maiuro¹

Excavation at the site resumed in June 2007, after a short campaign of magnetometry in the field in the northeast part of the site carried out by Sophie Hay (fig. 1)². This revealed few buildings, apart from a grid-shaped structure towards at the southwest corner, although the edges of a pond, later confirmed by local sources, are clear in the southeast corner of the field. Last year's sites at the casale and the monastery were continued, while a new site (D) was opened to investigate the grid-shaped building. Interventions by Roberto Gabriele of the Consiglio Nazionale delle Ricerche include the creation of a Digital Elevation Model of the hill on which the villa was built (fig. 2), a resistivity survey of the casale, and splendid balloon photographs the final day of excavation (figs 14 and 15, below).

Site A: The Casale

The area excavated inside the courtyard of the Casale almost trebled in size, although we were unable to complete the excavation of the whole of the courtyard. Our interpretation of the northeastern room as a *cella vinaria* for the production and storage of wine during fermentation³ was confirmed in full by the investigation of all of the available area of the room. The structure of the room is clear. On the northern edge is found a *calcatorium* for treading the grapes raised 70 cm. above the floor of the room and reached by three steps on its west end (and, presumably, on the other side as well). In front of the *calcatorium* is a vat lined with Luna marble, with a hollow for the sedimen-

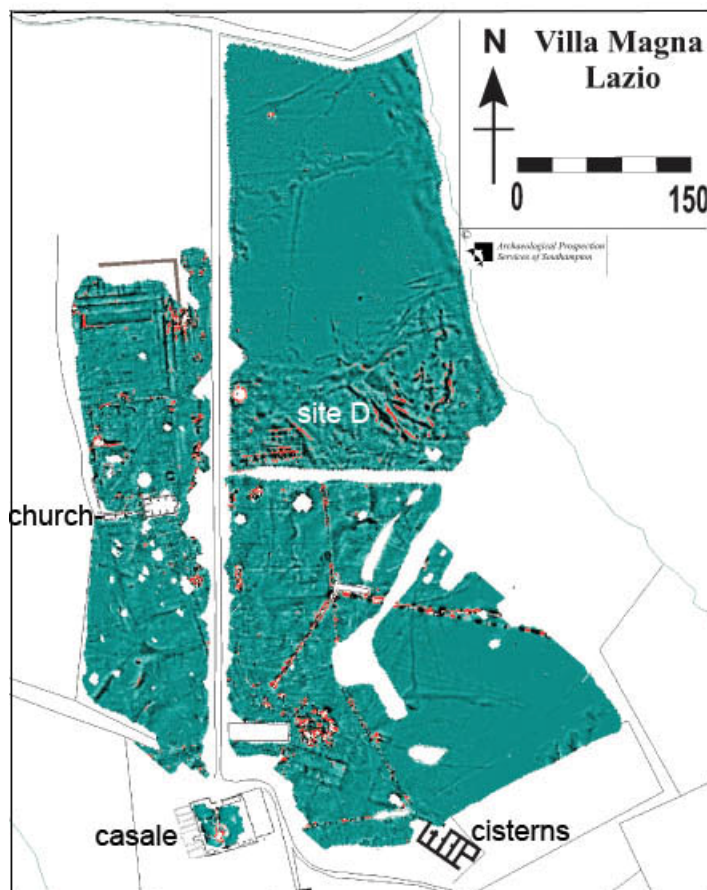


Fig. 1. Magnetometry survey 2007 (Sophie Hay).

¹ This text is based on the reports of Andrea Di Miele, Megan McNamee, Tom Morton, Serena Privitera, Federica Romiti, Janine Young.

² The excavation was once again generously supported by the 1984 Foundation and the Comune of Anagni. This year we also received financial support from the Department of Art History of the University of Pennsylvania and the Banca di Credito e Commercio di Anagni. Piemme S.R.L. lent us earth-moving machinery, and L.-P. Archaeology supplied its excellent web-based GIS database, ARK, as well as two members of staff.

In 2007 the training mission of the project was implemented in full, with two seasons of four weeks, each welcoming c. 15 students (in addition to 15 staff, who worked both months). These came from a variety of universities in the US, the UK, and Italy. In addition, we were delighted to receive 20 students from the Liceo Classico of Anagni, most of whom provided enthusiastic and very welcome assistance. Marcello Bruni, Gioachino Giammaria and Rosella Gori were, as ever, invaluable to the project, providing logistic support and connecting us to the communities of Anagni and Sgurgola. We are grateful to Roberto de Cesaris for his aerial photographs, taken after the excavation to record crop marks around the grid building, and to the marvellous balloon photographs of Andrea Angelini, Francesca Colosi and Cinzia Filippini of the CNR.

Finally, we are very grateful to the proprietor of the site Rodolfo Cesaritti, for his continuing enthusiasm and encouragement.

³ FENTRESS *et al.* 2006: 2.

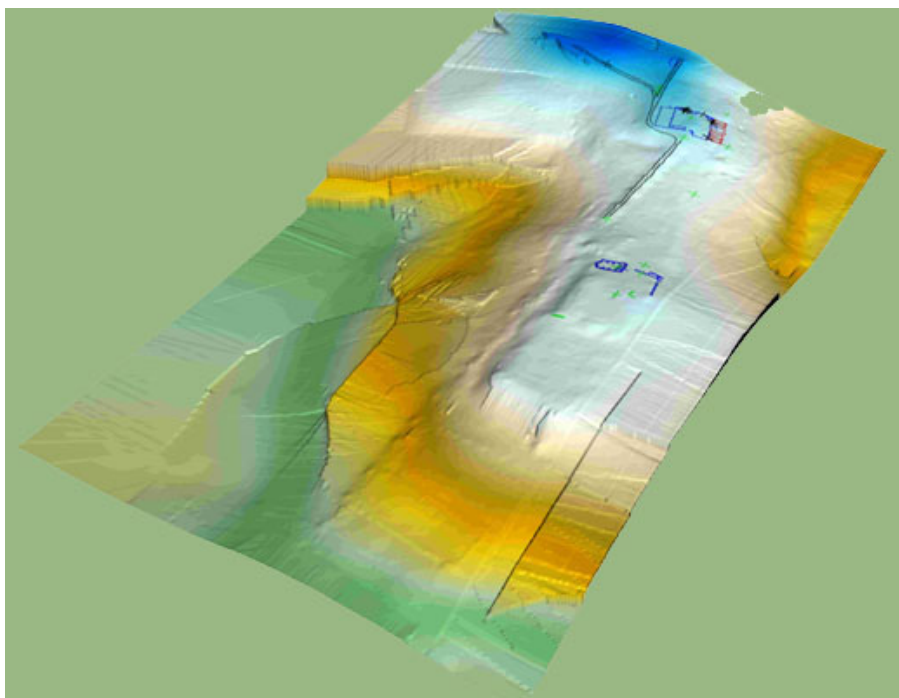


Fig. 2. Digital Elevation Model (Andrea Angelini, Roberto Gabrielli).

tation of impurities at the bottom. It must have been connected to the *calcatorium* by a spout, now lost, which would have channeled the must from the grapes. However, the most important discovery of this year is the series of *dolia* within the *cella*. Although both the *opus spicatum* floor and the *dolia* themselves were almost totally robbed out, the cuts in the undisturbed clay layer below them showed the positions of 28 of these containers, laid out in four parallel lines running east-west (fig. 3). In the western half of the room there were three rows of five *dolia* and one, the northernmost, of four. The rows were arranged so as to allow wide passages down the axes of the room, both east-west and north-south. We may thus calculate the original quantity of *dolia* in the room as 38. Of these, the two central *dolia* in the second row are much larger, and seem to have been edged with green



Fig. 3. View of the *cella vinaria* showing robbed-out *dolia*. (Elizabeth Fentress).

serpentine bands: this might allow us to interpret them as set off for the emperor. In any case, it will now be possible for us to calculate the productive capacity of the villa.

The *opus spicatum* pavement in yellow marble described in last year's report was almost entirely destroyed at the moment of the removal of the *dolia*. However, a small section was recovered in the southwest corner of the room. Here a patch was clearly visible, indicating some reworking of the floors during the life of the

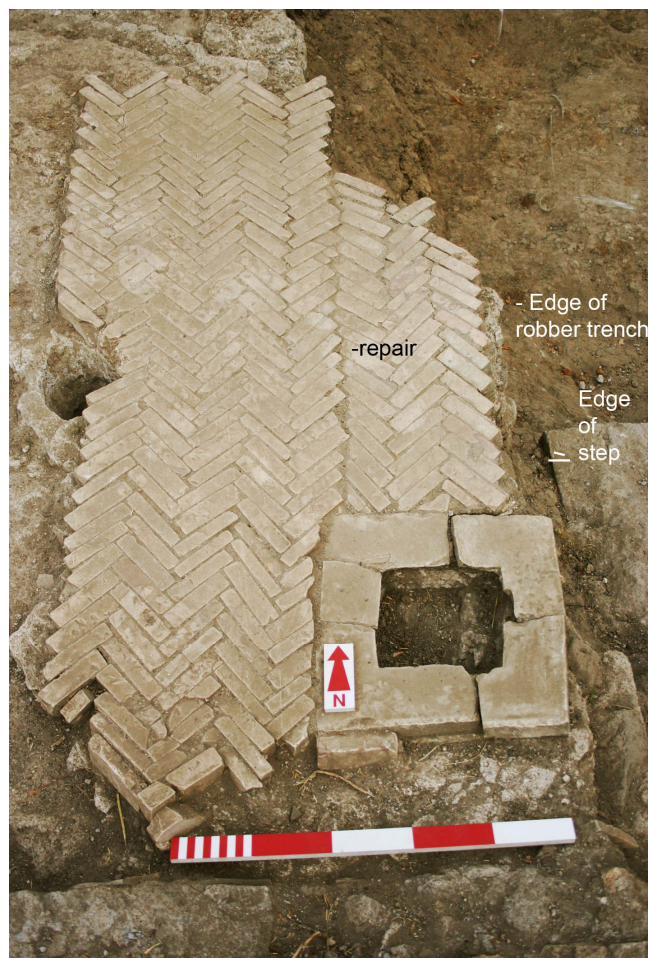


Fig. 4. *Opus spicatum* floor, showing patching and the end of the foundation for the step. (Janine Young).

structure (fig. 4). One of the carefully framed holes built



Fig. 5. Brickstamp of C. Galerius Restitutus (Elizabeth Fentress).

into the pavement between the rows of *dolia* was evident here as well, but the interpretation given to them last year, that they led down to a lower storey, must be rectified, as they appear to have been no more than 50 cm. deep, finishing with a layer of masonry. Their interpretation remains difficult: they might have been created so as to permit the temporary placement of a modular wooden floor over the *dolia*, supported on struts that would have fitted into the holes. Such a floor would have been put into place as the *dolia* nearest to the *calcatorium* were filled, allowing greater ease of circulation and avoiding contamination of the wine. However, this interpretation remains entirely hypothetical. Another structure whose interpretation is unclear is a relatively shallow foundation running parallel to the southern wall of the room. This is linked to the wall by a line of *bipedales*. It comes to an end in conjunction with the surviving pavement in the southwest corner of the room (fig. 4), which, together with the absence of any trace of *opus signinum* seems to falsify our interpretation of it as the foundation for a channel.

However, the *bipedales* pierced by four built drains with a square section around 1m deep that come to an end with the clay of the subsoil. These are interpreted as soakaway drains for the cleaning of the floors, and the wall is tentatively interpreted as the foundation for three steps leading up to room II, to the South. Within them were found Antonine coins, some fine glass fragments belonging to drinking vessels, and a small bronze plate brooch, its fine pin intact, with enamel inlay and some gilding. The type was popular across the Roman Empire in the second and third centuries. Together with the numerous brickstamps (fig. 5) of C. Galerius Restitutus, probably an agent of the wife of Antoninus Pius, Annia Galeria Faustina, these confirm the dating of the building in the central decades of the second century.

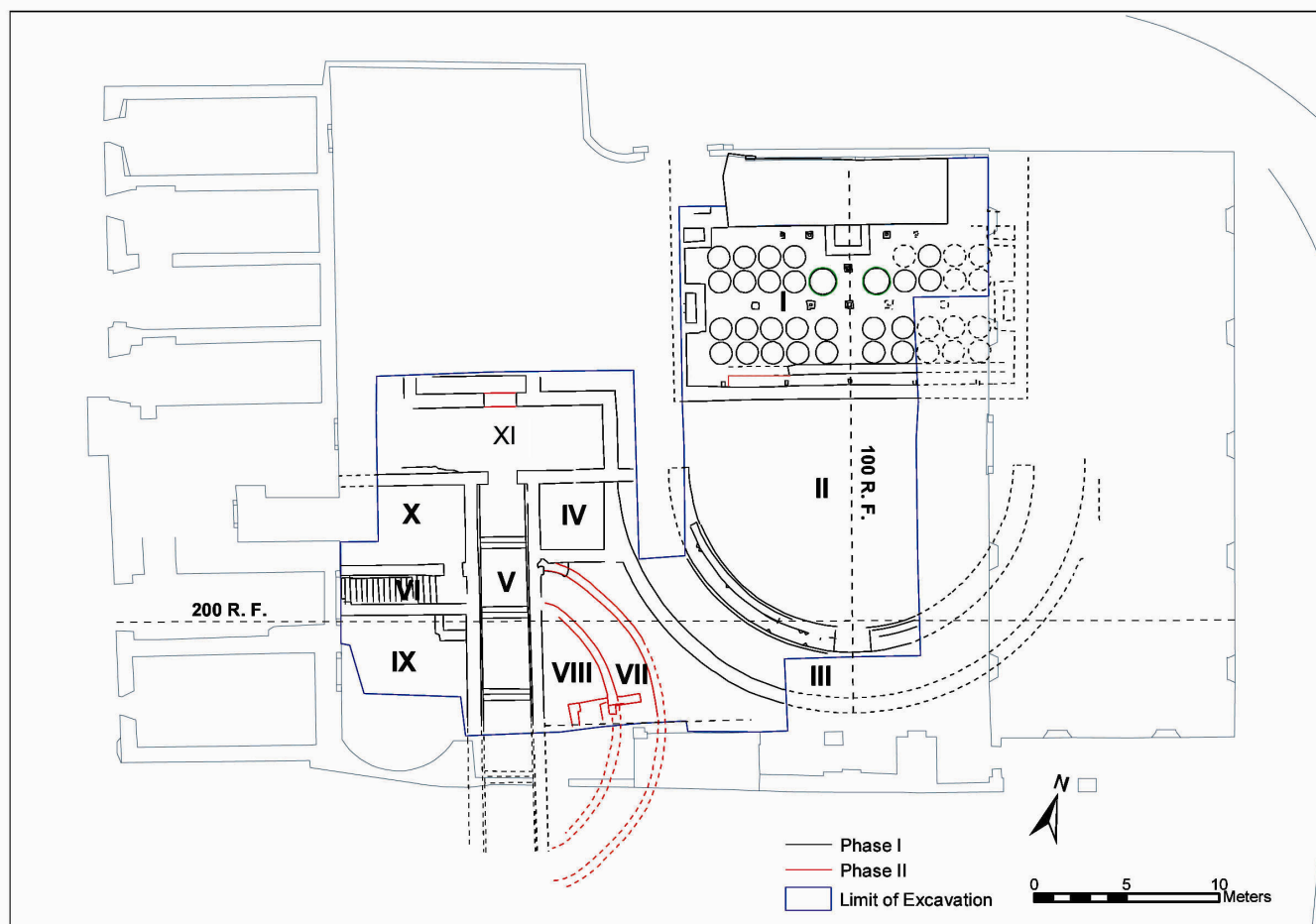


Fig. 6. Schematic plan of the excavations (Andrew Dufton).



Fig. 7. The excavations, viewed from the tower (Elizabeth Fentress).

the *cella vinaria* was decorated at an extraordinarily high level, in sharp contrast with its mundane function as a place for pressing and fermenting wine. The structure is unique in the long list of Roman wine pressing rooms.

To the south of the *cella vinaria* lies a second room, II, defined by a wall which runs in a semi-circle around the south side. (figs. 6, 7) Beyond it, a second, parallel wall creates an ambulatory, room III. The diameter of the circle is 60 Roman feet, while the north-south dimensions of rooms I-III is exactly 100 Roman feet. The three rooms must thus have been planned together as a single architectural complex, laid out according to a precise geometrical scheme. The north-south axis runs from the *calcatorium* through the vat to the apex of the hemicycle. The hemicycle thus opens like a *cavea* in front of the *cella vinaria*, which acts as a *scaena*. The interpretation of room II as a *coenatio* derives not only from comparison with similar structures in luxury villas (the 'stadium' at Tivoli is an obvious example) but also from the celebrated letters written by Marcus Aurelius to Fronto, in which he mentions his dinner in the *torcular* (Fronto, 4, 6). The architectural form, a hybridization of two quite distinct building types, has no parallel that we know of. The dividing wall, which serves as a sort of architectural diaphragm, was probably built to its full height only at the sides, framing the view like wings on a stage: a foundation 1.5 m. long flanking the wall at its western end seems to support this hypothesis. It may also have served as a stylobate for columns, but we have no direct evidence for this.

We have no idea what the floor looked like: radically cut down at the time of the construction of the *casale*, it is lacking not only its marble surface but even the preparation layers. However, some further hints as to the architecture of the room come from the walls. The inner hemicycle, built in the same fashion as all of those in the building, rests on a foundation almost half again as large. On this foundation were observed thin guidelines cut with a stylus into the mortar, running radially across the wall. The guidelines are found at regular distances of 2.20 and .75 m. apart, with a central set along the axis of the room. They were clearly intended to delimit features in the wall above. We have interpreted the central pair as indicating a door, as well as, perhaps, a window, and the two sets on the sides as delimiting the future positions of windows.

The room would thus have been accessible from the ambulatory, room III, which presumably served as a service corridor. It was paved in a coarse white mosaic pavement and plastered with a simple red pigment, both of which suggest a more humble function than the decor of the main rooms. The wall is significantly thinner than that of room II, and we would interpret it as supporting a roof only a single storey high. Outside the wall a foundation offset is visible, abutted by earth. Although excavation of this area is not yet complete we believe that the space is external, and may have served as a garden.

Figure 8 provides a preliminary reconstruction of this set of rooms: it should be stressed that it is entirely provisional, and is intended to give an idea of the volumes rather than any more definite view of the spaces. There seems little doubt that the main space was two storeys high, however, with a clerestory giving light to the space above the level of the service corridor.

⁴ BRUN 2003: 55.



Fig. 8. The cella vinaria/coenatio complex, reconstruction drawing.

To the West of the hemicycle an expansion of last year's trench A1 gives us more of the plan of the building, articulated in rectangular rooms and paved in marble *opus sectile* with geometric patterns. (fig. 9). In the course of this campaign rooms XI and IV were entirely excavated. The latter is square measuring 12 feet on a side, whose door was probably on the north side. In room VI a steep stair with steps in brick connects this floor with the vaults underneath the western part of the building. Immediately to the south of this is found a room with a wide apse on its south side, visible since the beginning of the excavation. This room has not yet been excavated: at a depth of two metres it proved to have been used as a lime kiln during the construction of the nineteenth-century casale: a small vat in its northeast corner was used for the slaking of the lime. Its floor level is clearly much deeper than that of the rooms in the rest of this sector, and the position of its door remains entirely obscure.

The most interesting space, however, proved to be the wide stair in room V, whose beginning was revealed in 2006 (fig. 10). This is a monumental access to the building, 2.70 m. wide and at least 21 m. long. It is composed of a sequence of landings paved in a simple white mosaic separated by flights of three stairs completely revetted in Luna marble. The walls were veneered in panels of the same marble, separated by strips of *pavonazzetto*, at least up to the height of the dado. Curved fragments of plaster suggested that it was covered by a hung vault. The slow ascent of the slowly sloping stair would have given a ceremonial aspect to any entrance to the building. At the top of the stairs the emperor would have proceeded straight ahead through a door, later blocked, in the north wall of room XI. The fact that the formal entrance to the building



Fig. 9. *Opus sectile* paving in room VI (Elizabeth Fentress).



Fig. 10. The 'imperial' stair (Elizabeth Fentress).

lay on the south side is a surprise: excavations next year to the north of room XI and outside the courtyard should bring to light just how it was articulated with the *cella vinaria/coenatio* complex.

A number of fragments of wall-painting, were found in the area of the stair, which must come from the painting of the walls and the vault above the marble dado. One can now discern relatively plain white walls with large orthogonal fields delineated by dark bands, a format popular from the Antonine period through the end of Roman antiquity. A few fragments document stylized floral elements scattered regularly on a cream background. Most striking are a number of fragments painted with the height of finesse, of white interlace elements on a deep red background, in a pattern related, like that of much Imperial Roman painting, to those of ceiling and wall stucco. This decoration's plaster was also of the highest quality, in fabric and deposition; identically fine plastering occurred in a class of fragments painted in the costly pigments blue and green. The red-and-white surfaces clearly offer a special chance at a close date for later second- or third-century decoration of the compound; it is apparent already that, like some of the sculpture described below, they tie the villa firmly to the most elegant of metropolitan Roman displays.

The decoration of the Villa: Statue Fragments from the Casale

There are, overall, two classes of sculptural remains. One consists in fragments that have suffered medium to extreme wear, and are principally cut up from statues at least life-size, especially, fragments of a naked upper arm and of foot-length drapery of female figures, and the lower leg of a nude male. From the Antonine period on, only a divine or mythical woman will have been depicted with bare upper arm; the male leg must come from a nude, which can have been a generic athlete type, a heroized portrait, a god or mythical hero. This class of fragments comes both from the casale and the monastic areas, perhaps cut down for lime kilns, or for building. Its most notable member is a finely executed portrait head from the casale, now extremely battered and broken; nose and chin were deliberately hammered flat. (fig. 11) The still-intact eyes of the middle-aged, somewhat plump-faced, short-haired subject date the portrait to roughly the middle third of the third century AD, certainly post-Severan and pre-Tetrarchic. At a villa occupied by the imperial power one expects imperial portraits only; but while features of the carving parallel characteristics of the images of Balbinus, we will need more research to match the face specifically with any known emperor's images.

The other class of remains preserves much or all of the original high polish on a finegrained white marble, its surfaces free of scratches and pick marks, even though most



Fig. 11. Portrait Head (Ann Kuttner).



Fig. 12. Fragment of a Seasons Sarcophagus showing a leg and a boar's head (Ann Kuttner).



Fig. 13. Fragment of a statue group showing Hercules and Hippolyta (Fabio Sigismondi).

edges are broken. One, found in one of the dumps of marble in the *cella vinaria* can now be identified as a fragment of a Season Sarcophagus of relatively large size. This is the bare lower leg of Winter (fig. 12), with his characteristic attribute of a boar, rendered here as a tiny miniature nestled against Winter's ankle, its eyes clothed in death (boars were a favorite hunt target in the cold-weather season). An elite sarcophagus like this, which by style and subject has to be third-century, signifies a well-built *mausoleum* somewhere near the villa. Finally, also from *cella vinaria* fills, comes a 2/3 life-size mythological group of Hercules hoisting a struggling Amazon in the crook of his left arm: preserved intact is her clothed torso and some of his drapery, both his lion skin and a mantle. (fig. 13) They have been broken neatly (more or less) at knee, at neck, and at shoulder. Until this dismemberment they retained all their original polish. Amazonomachias are very common in most Roman media, though less so in sculpture. The hole in our Amazon's shoulder for an inserted metal arrow, and the raised position that can be inferred for Heracles' right arm (brandishing a weapon) attest battle. However, almost unique in the Greco Roman *corpus* in all media is that Hercules, a favored hero of imperial commissions as the mythic analogue to the emperor, is actually embracing his opponent. The sole option is to identify this Amazon as Hippolyta, whom Hercules and Theseus attacked to obtain her talismanic belt, or girdle. And indeed, the flying tasseled ends of that belt are carved across her chiton, an extremely rare detail on Amazon image; to pull off a girdle will make the woman's gown come loose, a narrative moment towards which a conventional combat group has been twisted. From carving technique to figural proportions and scale, the style of the Hercules-Hippolyta seems to suggest a third-century date, a period adaptation of a Hellenistic scheme known in at least one fragment from a late Republican villa at Rome). Like the wall paintings and the portrait described above, the statue might point to Severan or later use of Villa Magna for imperial visits.

Later Building Activity

To the east of the stair, in what must once have been part of the garden, is found an exedra (rooms VII and VIII). Its ambulatory is paved in coarse white tesserae with a border of black, and the whole is clearly later than the

rest of the structure, its walls built of roughly faced and irregularly bedded blocks of tufo in a thick white mortar. We are not currently able to date these walls.

The *cella vinaria*, too, underwent some changes. Two deep robber trenches 60 cm. wide and 1 m. deep run north-south on either side of the room, symmetrically placed. They certainly cut the positions of *dolia*, which must have been removed when the structures they represent were built, but there is no reason to think that all of the *dolia* were put out of use at the same time. The depth of the foundations of the structures, and the fact that they were made of material considered worth recycling, suggests brick walls, or possibly walls of cut stone. The fact that they abut the *calcatorium* suggests that they *might* have been channels, carrying the must towards the inner rows of *dolia*. Some repairs to the *opus spicatum*, fairly carefully carried out, may date to this period, as would a small basin cut into the floor of room XI. At some point the door leading north from room XI was blocked, as was the door in the rear of the hemicycle.

Spoliation

The next major event in the history of the building is the spoliation of the *dolia*. This was carried out by smashing through the *spicatum* pavement and removing the clay that surrounded the *dolia* for over half of their depth. They were then levered loose from the clay at the base: traces of the instruments are visible to one side of the hollows that they left. Not all were removed intact: the remains of 8 or 9 were found in the rubble thrown back into the trench. The operation was systematic and thorough, however, and finished with the filling of the trenches with the marble from the *spicatum* and the wall veneers. Dating of this event is difficult. It is clear that it happened before the systematic burning of marble in lime kilns was current at the villa. There are a few medieval sherds in the context, but these are probably intrusive. Our guess is that this took place in the late Roman period, at a time when the *dolia* would still have been considered valuable enough to warrant the effort required to remove them. The two robbed walls in the room were removed after the trench had been backfilled with the debris. Elsewhere, ceiling collapse in room IV lay directly on the preparation of the floor, showing that spoliation of the marble began while the roofs were still in place.

Post-Roman Occupation

Later occupation is indicated by almost 200 postholes. Although we have not yet reached conclusions as to the buildings these represent, and the removal of all the medieval stratigraphy at the time of the construction of the *casale* notably complicates the issue, some phasing is already possible. The first group of constructions is suggested by a series of rectangular and very regular postholes along the walls of rooms X and XI. Their position suggests that the walls were still standing, and that the posts were used for supporting new roofing after the collapse of the original roofs. This is a classic 'squatter' occupation, although we have no evidence for its date or material culture.

In a later phase it is clear that the walls had been largely removed, as many are actually pierced by the postholes. They are particularly numerous within rooms II, IX, X and XI. They are generally circular, of variable diameters, often wedged with stones or bricks. Several alignments are plainly visible, particularly in the southwest side of room II, that might be identified with rectangular buildings. However, we are not yet in a position to judge the size of the wooden houses that they indicate. Of the larger pits two are worth mentioning. One, in room XI, was round and straight-sided, measuring 1.20 m. in diameter and 80 cm. deep. This contained nothing but a fragment of early medieval liturgical furniture ornamented with a guilloche molding; the absence of other materials leads us to interpret it as a grain silo. The other, to the South of the ambulatory, room III, was in contrast filled with sherds and bones certainly to be interpreted as a midden. The pottery, decorated with red bands and with occasional sherds with a brown or green glaze but tellingly with no archaic maiolica, appears to date from the twelfth or thirteenth centuries. The stair, room VI, which runs down to the lower vaults, was blocked in this period as well, as a substantial deposit of material behind the block suggests.

This material allows us to suggest that the village represented by the postholes was one of the *casalia* (open settlements) mentioned in the contemporary documents from the monastery of S. Pietro di Villamagna from the tenth to the thirteenth centuries.⁵ Significantly, one of the thirteenth-century documents discusses the rights of the tenants to take with them the wood from their houses when moving.⁶

The Construction of the Casale

We have identified no traces of stable occupation between the fourteenth and the eighteenth centuries in this area, although sporadic fragments of maiolica suggest some sort of use of the site. Somewhere between the late eighteenth century and the middle of the nineteenth⁷ the area was levelled for the construction of the *casale*. Almost all standing ruins were leveled, the rest being burned in the lime kiln inserted into Room V; the exception is the apse

⁵ The lay villagers of Villamagna lived in unfortified groups until the late thirteenth century, as reported in the documents describing the properties and villagers in FLASCASSOVITTI 1996.

⁶ See doc. 1, dated c. 1250, transcribed in CAROCCI 1997: 132.

⁷ TOMASI 1999: 39.

in the southwest corner, which became part of the wall of the courtyard. The depth of this room seems to have obviated the necessity for actually constructing a kiln: alternate layers of lime and burning suggest that the whole of the room was used for this purpose. The foundations of the building as far as the western end of the *basis villae* were used for the new buildings: first a small farmhouse, gradually enlarged to include a fake medieval tower and various subsidiary buildings. To the east, a granary was built, with construction beginning in 1870. Successive pavements of gravel and sand were laid over the leveled foundations, the earliest in direct contact with the floors of the villa or their preparations. Twentieth-century activity is found in various animal pens, as well as a structure built to house a generator, whose grounding was buried in a large cylindrical pit in the *cella vinaria*.



Fig. 14. Site D: balloon photograph (A. Angelini, F. Colosi and C. Filippini).

Site D (fig. 14)

A new area was opened on the east slope of the hill, where the magnetometer indicated a building with a grid plan. It was hoped that this would give us some indication of a service building, or, perhaps, of a structure like the *ospitalia* at Hadrian's villa. In the event, the site has provided us with much evidence for periods not represented elsewhere on the site. The major structure in the trench was a well-preserved Roman road, beautifully paved and over 5.80 m. wide, heading down the hill towards the east. This may, indeed, be the road referred to in the Severan inscription from Anagni, which mentions the paving of a road to Villamagna (C/I L X 05909).

To the north of the road a portico runs between the road edge and the building. The piers are missing, but their foundations, of *bipedales*, are carefully set into concrete, built after the completion of the road. The portico was floored in beaten earth and covered with a tiled roof. The burned remains of this roof include stretches of planking covered by transverse beams and the debris of burned tiles. Below the pavement a wall emerges at a slight angle to the pier bases: this appears to be an earlier wall, the crest of which emer-

ged in places at the time of the fire that destroyed the building. It indicates earlier occupation, although it may be coeval with the construction of the road.

Inside the building were a row of at least four rooms whose walls correspond to the positions of the piers of the portico: the whole appears to have been laid out on a module of roughly 3.5 m. or 12 Roman feet. No doors are apparent as yet, either towards the exterior or towards the inner room, which appears to have no divisions within it. The inside of the building was only excavated down to the destruction of its *pisé* walls, and thus remains enigmatic, although its position along the road suggests that it may have constituted barracks for the soldiers who guarded the entrance to the villa.

Both the road and the grid building were cut by a ditch running roughly north-south across the site. No more than 1.5 m. deep, the ditch cut through the walls and the paving stones of the road. On its western side is a foundation, composed of highly compacted stones and tiles set in an earth mortar. Around this foundation irregular postholes suggest that its steep sides were due to an original wooden revetment, which maintained the edges vertical as the rubble was compacted. We might interpret this as the base of a wooden tower or palisade, guarding the much-restricted entrance to the villa along the road: the ditch must have been crossed on a removable wooden bridge. However, further excavation will be required fully to grasp its plan. The rather limited quantity of pottery from within the ditch indicates a date towards the middle of the fifth century when the ditch began to accumulate debris, presumably soon after construction. It is notable that the inhabitants of the villa were still numerous enough to

organize their defense, but lacked the time or, perhaps, the skills to construct a masonry wall, for which the materials can hardly have been lacking.

The final occupation of this area is indicated by the dumping of a large amount of pottery and artifacts: indeed, the layer under plough soil is the richest on the site for finds. These include bronze harness ornaments, buckles, and numerous coins, as well as much late Roman pottery: African Red slip is present in some quantity, as are amphorae, so the inhabitants of the villa were still closely linked to the long-distance late Roman market.

Monastery

Excavation in the area around the abbey church continued in 2007, both in the area of last year's trench and in enlargements to the North and West. The expansion was aimed at helping us to understand the buildings around the church, particularly the westward limit of a building with thick foundations partially exposed last year and the structures beyond the northern wall of tombs. The area of the 2006 trench is now referred to as BI and the contiguous trench to the North is called BII. The excavation of the chapel in the church continued through the late medieval phases into earlier structures and graves. The 2007 campaign has seen a significant portion of the cemetery and churchyard excavated, and brought clearer understanding of the large rectangular building, now confidently identified as a bell tower, and a series of buildings to the North which perhaps pertain to the monastery. (fig. 15)

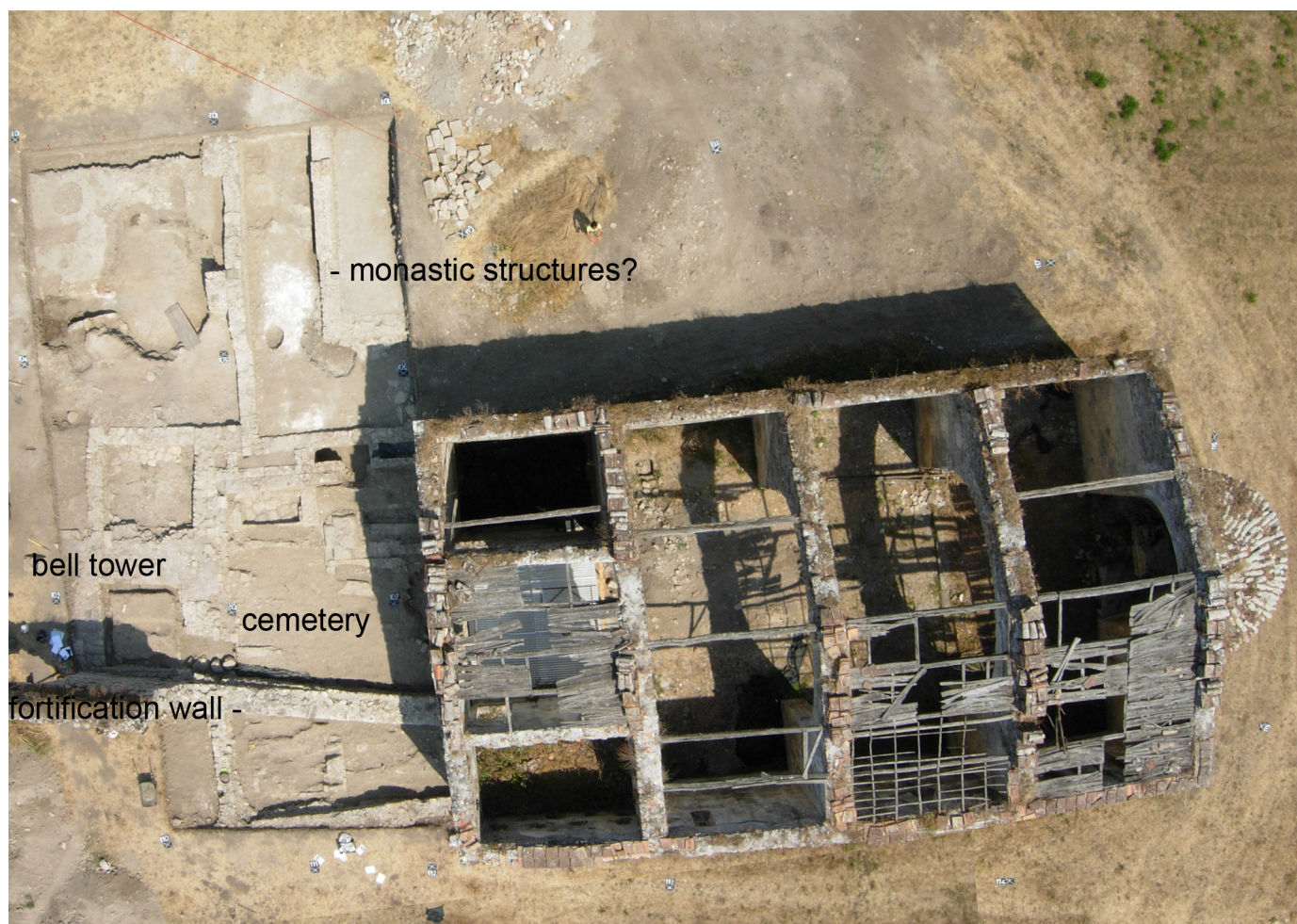


Fig. 15. The monastery excavations: balloon photograph (A. Angelini, F. Colosi and C. Filipponi).

The 2007 field season yielded many new medieval burials. A total of 86 skeletons were recovered during excavations at the monastery: 73 from trench BI; 10 from trench BII; and 3 from within the church, Trench CII. Two ossuary pits, partially excavated in 2006, were also emptied. Due to the vast quantity of skeletal material present in the monastery area, much of which is in secondary (or later) deposition, only articulated human remains were documented with the anthropological registers. For the same reason, loose bone was only preserved if it was excavated in the context of a grave. Partial anthropological documentation was completed in the field, all skeletons were geo-referenced and digitized, and preliminary osteological analysis was carried out in the lab for all human remains excavated thus far. Here the stratigraphic excavation and interpretation of the graves is integrated with the excavation of the church and related structures.

The church of S. Pietro was the nucleus of all the building activity in this area. As it stands today, the church preserves the outlines of its twelfth-century plan. It is a single-apsed basilica, with a finely-cut ashlar apse of the twelfth or thirteenth century. The interior diaphragm arches currently visible are later additions, perhaps associated with the nineteenth- or early twentieth-century renovations, discussed below.⁸ In the twelfth- and thirteenth-century phases, we can imagine that the interior was decorated with Roman marbles, many fragments of which have appeared in excavation and were reused in the nineteenth-century renovations. Excavation in the chapel has shown that in this area of the northern aisle, the pavements, which dated to the late middle ages, covered two tombs made of spoliated marble slabs and Roman bricks.⁹ The tombs were oriented east-west, abutting the northern wall of the church. A partially preserved skeleton of an adult male in a supine position with legs extended is all that survives. The tombs were partially destroyed to create a bell-casting pit in the church during one of the rebuilding projects. (fig. 16) The excavation of an area of production within the church during the 2007 campaign has shed light on an episode in the reshaping of the church and its community.



Fig. 16. The bell-casting pit in the chapel, showing the blocked praefurnium (Caroline Goodson).

The casting pit cuts across the nave and aisles of the church, indicating that it predates the laying of a new floor, which is now entirely missing, perhaps the Cosmatesque pavement of the early twelfth century, identified last year in the northeast corner. The actual bell, now lost but in part reconstructed by the dimensions of the casting form some 70 cm. in diameter, was probably cast by a specialist bronze worker who came to the site. We have been able to determine the casting techniques employed here, which compare to those described by in the twelfth-century treatise of Theophilus *presbyter*.¹⁰ According to his treatise, and judging from our excavated remains, two parallel walls were built of brick to serve as the *praefurnium*. A wax model, encased in clay material, was placed over the *praefurnium*, and a fire was lit beneath it to melt the wax and create a cast. The mold was then packed with a soft grey earth and a small wall was constructed next to it, to support the mold. The exact location of the crucible to melt the bronze has not been identified, though we can assume it was nearby. The molten bronze was poured into the mold and left to cool. Because so few bell-casting pits have been excavated scientifically, and even fewer have been firmly dated, the thorough study and dating of materials from this trench by a specialist will be a major contribution to the study of the middle ages in numerous respects. It also helps us relate the phases of the interior of the church to the phases of construction outside, namely the bell-tower, currently the third of our identifiable phases in BI/BII.

The casting pit was filled with earth and packed with a leveling surface. This part of the church aisle was then covered with a plaster floor: this may have been the preparation for the Cosmatesque pavement, although later destruction and burials removed any trace of it from the room. A number of intercutting rectangular earthen graves were dug into this surface; the majority of these have an east-west orientation, aside from three burials in the south-west corner of the chapel, which have a south-north orientation. Interestingly, the only undisturbed burial is that of an adult male in a large grave in the very centre of the chapel – perhaps this was an important individual. The individuals were uniformly laid out in a supine position with legs extended. Both genders are present, but these burials are striking for the high number of neonate, infant and child burials, some 63% of the individuals in this phase.

It is now clear that there were several different structures in the area in front of the church. In the earliest identifiable phase, walls of *opus listatum* masonry abut the façade of the church at the outer edges, turning corners. These walls formed a narthex in front of the church, ca 2.5 m. wide and running the length of the façade. We can reconstruct this feature by comparing it to extant nartheces, including S. Vitale, Rome (dating from 402-17) and S.

⁸ They have previously been dated to the thirteenth century with nineteenth- or twentieth-century renovations, based on typological affinity with other churches. DE MEO 1998: 73, 83. The archaeology of the architecture, however, suggests that they were added in the modern period.

⁹ On the pavement FENTRESS *et al.* 1006: 5.

¹⁰ NERI 2004; 2006.

Apollinare in Classe (533-49) near Ravenna, both of which have columns supporting arches in front of the door and a single pitch roof which leaned against the façade.¹¹ The narthex at S. Pietro di Villamagna had lateral doors, one to the North and one to the South, though any traces of the central arches, columns, piers or the like have been lost through later activity in this area.

The subsequent phase brought about the destruction of the narthex. A series of stone-built tombs were constructed abutting its western side and inside its northern wall, cutting through the wall. The tombs are on an east-west orientation, contain multiple burials, and seem fairly uniform in size and depth. Four have been fully excavated: tombs A, B and C, which were emptied and reused in a later phase, and tomb E, which contained 6 consecutive inhumations. Individuals were buried in an extended supine position with heads to the west and the feet to the east. After the first individual had been buried, the tomb was filled with earth and reopened at various points in order to insert additional individuals. These later interments disturbed the earlier burials. Disarticulated bones were retained within the tomb and make up the fill.

Although the sample size of burials from this phase is small at present, the variety in age and gender of the individuals buried suggests that these tombs were used by the lay population and may even have been family plots. One individual, a female juvenile, had earrings on either side of the skull.¹² Otherwise the individuals buried in this phase were devoid of grave goods or personal belongings that could definitively be associated with their burial.

The area occupied by the tombs may have been enclosed by a wall, the Churchyard wall identified in the 2006 campaign. Only a very limited stretch of this wall remains however, the rest having been rebuilt in a later phase. To the north of the churchyard two sectors of the monastic buildings have emerged. The first is defined by a long north-south wall running the entire 10 m. of the trench. It appears to abut the narthex of the church, though subsequent rebuildings make this difficult to confirm. As it appears currently, this wall forms the eastern wall of a room, with buttress-piers that may have supported cross vaults. The northern wall is represented by a robber trench at the northern limit of the excavation. Several plaster floors for this room are visible, but these have not yet been excavated.

The subsequent phase saw a shift in the spatial organization of the cemetery and a series of major buildings in the area around the church. Tombs A, B and C were rebuilt and re-used at this point although articulated human remains were only found in tomb A. The rest of the built tombs were covered by a series of beaten earth surfaces, and the area in front of the church was transformed from a burial space into a churchyard with a monumental porch and campanile. It seems possible that the area north of the churchyard became the focus for mortuary activity in this period, as is suggested by the north-south alignment and location of one tomb, partially disturbed by later constructions. This will become clear in next year's excavation.

The 5 individuals from tomb A were laid out in an extended supine position on an east-west orientation, with heads in the west and feet in the east. Bones were in good condition, but the burials were generally disturbed by later interments. All the individuals in tomb A were adults and both genders are represented. Aside from a bronze crotal bell found in the fill of the grave of an adult female, no grave goods were found.¹³

The buildings that went up in this phase include a porch in front of the church, a bell tower, and a room to the north of the church. The porch was built around the front door of the church, with 2 large stone pier bases supporting, presumably, an arch or lintel parallel to the façade and secondary arches abutting the façade. We may imagine pilasters against the façade of the church supported on small bases at ground level. Only the northern pair of these piers and corresponding bases remain *in situ*, but the shape of the pier with its projecting faces makes clear that it had a corresponding set on the southern side, near where the later 'Borgo' wall was built. Between the pier and the smaller base near the façade, a foundation of large blocks has come to light, probably reinforcing the arch which abutted the wall. Aligned with the porch and some 10 metres from the facade are the remains of a bell tower, a square building with walls measuring 2.5 m. on their outer faces, and over 1 m. thick.¹⁴ In size and construction technique, though not construction materials, the remains resemble those of the twelfth-century bell tower at S. Severo, Classe.¹⁵ The walls, like the pier bases, are constructed in ashlar blocks and have a very hard blue pozzolana mortar (only a few courses of the elevation are preserved on the southern side, where they were reused for the construction of the late medieval fortification wall). The foundations include rubble and pieces of Roman and medieval sculpture for construction material. One piece of rubble is a fragment of an early medieval *pluteus*, with the kind of chipcarved guilloche motifs typical of late eighth- and early ninth-century liturgical furniture.¹⁶ This gives us a chronological window for the construction of the bell tower between the ninth century and the fifteenth century, when the 'Borgo' wall was probably constructed.

¹¹ On the former, see KRAUTHEIMER *et al.* 1977: 317-20, on the latter DEICHMANN 1969: 258.

¹² (2351*).

¹³ (2066*).

¹⁴ In the 2006 report this building was discussed as the Large Rectangular Building. Extension of the trench to the west in 2007 clarified the shape and size of the building.

¹⁵ See the interim publication AUGENTI 2006: 32-34.

¹⁶ For comparable examples see BELLI BARSALI, I, 1959.

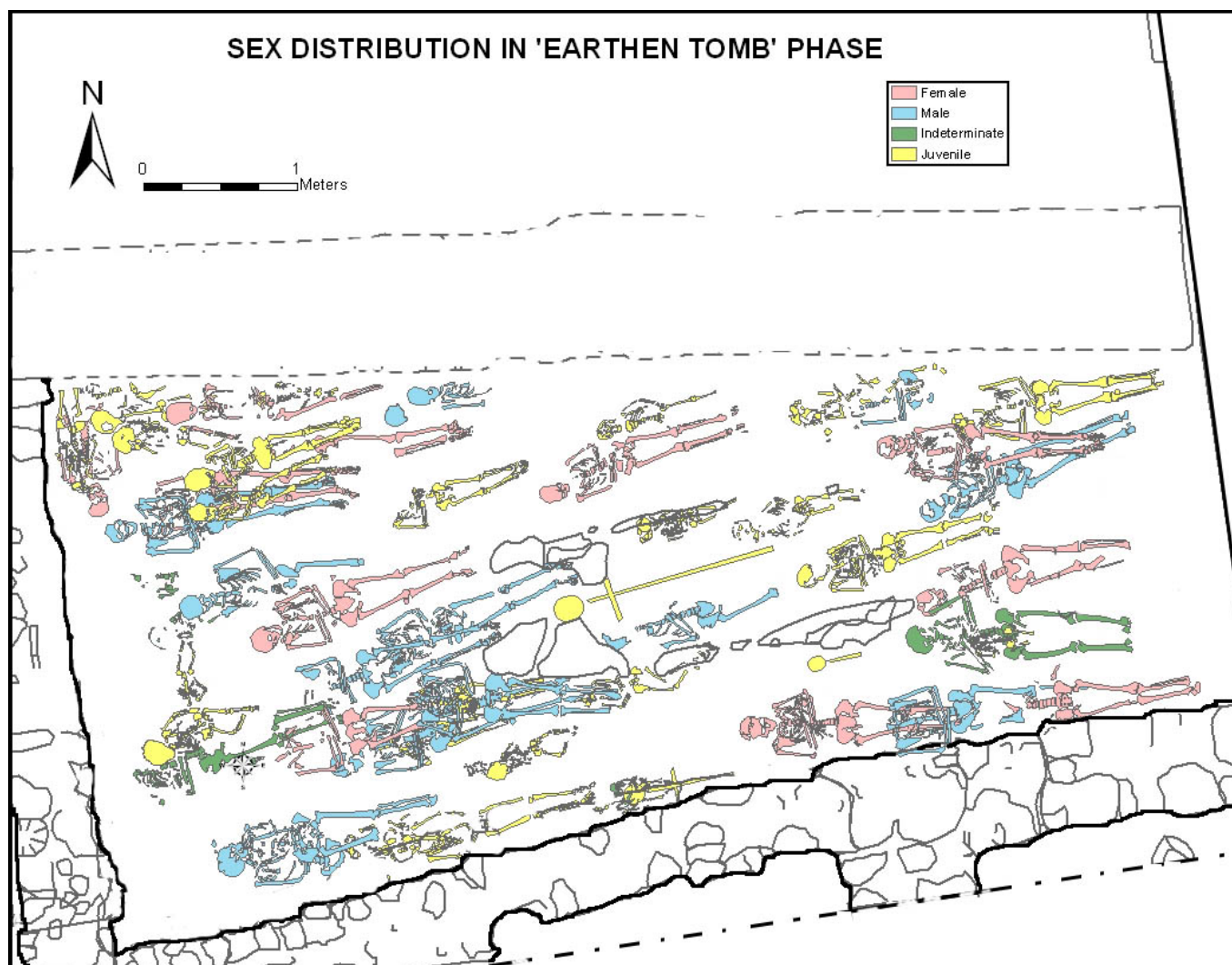


Fig. 17. Diagram of the sex-distribution of the burials in the southern area of the cemetery (Corisande Fenwick).

The same ashlar construction technique was employed to build a structure to the north of the churchyard, parallel to the earlier long north-south wall.

Only a corner of this structure lies within the excavated area, but the stratigraphy clearly points to a large rectangular building with rubble foundations and ashlar walls, paved with a very solid and smooth cement floor. The floor slopes down away from the walls at a steep grade, reflecting subsidence caused by partial collapse of the Roman cistern located beneath this room. We might interpret this as an open space designed to collect rainwater: possibly the whole could be interpreted as a cloister.

In a subsequent phase, the porch was destroyed while the bell tower and the room with the cement floor remained standing. After the removal of the porch two rectangular earthen graves were cut into its foundations. The individuals were laid out in an extended supine position on an east-west orientation; the skeletons are those of adults, and both genders are present. In the grave fills was found a bronze object and a bone ring. The area of the porch was covered by a beaten earth surface and the area in front of the church was given over to dozens of earthen graves. The area around the churchyard was walled off (again) with rubble and mortar walls abutting the bell tower and abutting the western end of tombs A, B and C. These tombs did, however, remain standing above ground, however, as a new wall was constructed, perhaps to buttress their southern walls. In the area to the north of the bell tower an ossuary was created, with three walls abutting the tower. It was built to house bones removed from the earthen tombs in the churchyard. It was built to lie underground, however, as the main entrance to the churchyard in this phase crossed it in this phase.

Sixty-nine burials have been uncovered so far in the southern area of the cemetery. (fig. 17) The graves were universally oval-shaped cuts, which varied in size and depth and orientation. It was generally difficult to determine distinct burial cuts, since in nearly all instances, the graves were disturbed by later activity. The intersection of almost all graves appears at first to reflect completely chaotic burial practices. In fact, it seems to represent the methodical re-use of burial plots for new grave rows. It is possible to identify two distinct subphases which consist of several rows of graves, intersecting only slightly, and which are on different alignments to each other. The second

subphase is related to the construction of the southern churchyard wall, accounting for the slight shift in the alignment of the graves.

Interestingly, despite the great degree of intercutting graves in this area, disturbed disarticulated bones were rarely found. This suggests that there was a general practice in this phase of immediately re-interring all the bones disturbed by later grave-digging. The bones were probably transferred to the walled ossuary. If this interpretation of the stratigraphy is correct, it suggests a certain level of cemetery management and possibly even that external markers for the graves once existed. In nearly all instances each grave contained a single primary inhumation. The two exceptions are a grave containing two children, and a grave with two neonates. All the individuals were laid out in an extended supine position, and nearly all are buried on an east-west orientation. The only exceptions to this pattern are three burials clustered together in the northwest part of this area; where, for reasons of space, the bodies were buried with their head to the South and their feet to the north. The condition of bones varied, but in general, preservation was good.

Several individuals were found with belt buckles *in situ*, rings on fingers, and necklaces. Otherwise, the graves found in this phase were devoid of grave goods or personal belongings directly associated with them. A significant minority yielded bronze costume elements (buckles, brooches, bells), and bone and bronze jewelry. The latter included a pair of earrings with glass beads (fig. 18), a neck-chain, and some of the nine finger-rings. It will be of great interest to see if the profusion of rings finds parallels in excavated medieval Italian cemeteries. Of the rings eight were inlaid, one with a blue bead; seven now constitute a distinctive class, first identified in 2006 (fig. 19).

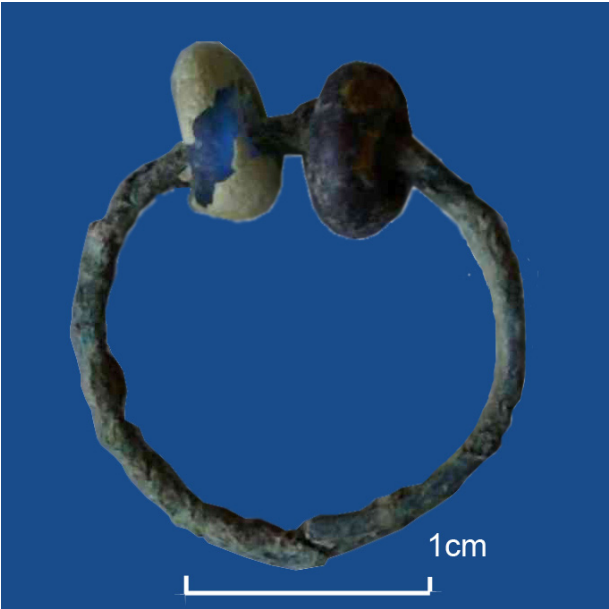


Fig. 18. Bead-decorated earring (Ann Kuttner).



Fig. 19. Bronze ring with glass inlay found in a burial (Laura Stephenson).

These have a bezel ornament of with glass-capped colored and gold-foil inlays, some perhaps constituting an emblem of some kind. Rings, coins, bronze and glass artifacts and other objects were sometimes found in the burial fill without direct association to an individual, and thus may be grave goods or residual material.

The most striking element about the human remains recovered in this area is the high number of neonates, infants and children. The total number of individuals who died before adolescence amount to 53% of the ‘Earthen Tomb’ group. One of these children was apparently buried with a worked-bone bead in the form of a cross.

Table of Anthropological Data on Excavated Skeletons, Divided by Areas and Phases

Age at death	BI Phase of ‘Built Tombs’	Phase of ‘Porch/ Campanile’	Phase of ‘Earthen Tombs’	BII	Chapel	Total
neonate/ infant	2	0	26	0	8	36
child	0	0	10	0	2	12
juvenile	2	0	6	2	0	10

adult	3	8	26	7	7	51
Total	7	8	68	9	17	109

Gender for adult	BI Phase of 'Built Tombs'	Phase of 'Porch/ Campanile'	Phase of 'Earthen Tombs'	BII	Chapel	Total
male	2	5	14	6	4	31
female	1	3	10	0	2	16
indeterminate (adult)	0	0	2	1	1	4
indeterminate (child)	4	0	42	2	10	58
Total	7	8	68	9	17	109

The excavated cemetery was surely the lay cemetery of the villagers of Villamagna, including presumably those bound to the monastery as serfs or vassals. Preliminary analysis indicates trauma patterns on the bones characteristic of heavy labor. The fact that women and children as well as men were buried here makes clear that this is not the monastic cemetery. Most of the materials from contexts in these phases are residual, fragments of marbles from floors or cookingwares and tablewares of regional rural production. Because these ceramic products are very homogenous over the period of the eleventh to the fourteenth centuries, and because they are most often appear as residual materials, it is extremely difficult to assign a date to any of these structures. We are using for the moment a relative chronology established on the basis of the stratigraphy, to be compared with the general chronology of the life of the monastery between the years 976 and 1297, known through the documentary record.

General finds for these phases in this area illuminate population and activities at the site in the middle ages. These include tools of textile production on a domestic scale, including a weaving needle and spindle whorls. There are bronze and iron accoutrements and what appears to be a net sinker, which if correctly identified might be associated with exploitation of a water feature to be explored in 2008, or a fish farm which came to be owned by the monastery in 1102¹⁷. These included



Fig. 20. The lime kiln in its first phase (Elizabeth Fentress).

riding spurs and harness elements, table knives, one or more daggers, and the projectile point of an arrow, probably for hunting. Finds that can be particularly related to the decor of structures of church and monastery continued to emerge in three classes noted already in 2006. One class attests to wall-painting, so far in non-figurative patterns and broad color-fields, only found in structures outside the church. Another is that of carved white marble for the church, particularly, elements of small capitals, and fragments of early medieval liturgical furniture.

The large fortifying 'Borgo' wall, discussed last year, abuts the façade of the church and covers the foundations of the bell tower, now destroyed, and a series of earthen graves. The typology of the masonry conforms to a fifteenth-century date. A further piece of evidence to the reorganization of the area in front of the church at this time comes from the northwestern part of Trench BII. This year's excavation in this area was dominated by the excavation and removal of a large (ca 2 m. x 3 m.) lime-burning kiln and adjacent lime-slaking vat (fig. 20).

The oblong structure of the kiln was built of rubble and some reused building materials with an earthen floor which was covered with charcoal during the firing of the kiln. The kiln was fed from a *praeurnium* to the West, which later was filled with rubble, either to reverberate the heat of the kiln during firing or to block it up after its use. The slaking pit constructed to the South made use of the long north-south wall standing against the tombs of the churchyard as one of its walls, and was covered by a thick even layer of lime sediment. The hole excavated to create the kiln was square in shape and over 1.8 m deep, cutting through at least three pavements as well as some tombs.

¹⁷ Document 14 in FLASCASSOVITTI 1996: 30-31.



Fig. 21. The portal of the church after the excavation of its construction trench, which cuts the cemetery (Elizabeth Fentress).

portal and the creation of stairs up to the new door. It may be that these interventions were carried out by the Balestra family, after they purchased the property and in the course of other renovations after 1870. Previous analysis of the building has already associated the rebuilding of the diaphragm arches of the church with nineteenth-century renovations, which may have also included the creation of a wooden choir over the portal of the church.²⁰ The creation of a terrace wall, with large blocks of different sizes and a rubble packing on the earth side of the terrace, is difficult to locate chronologically, however the other refurbishments to this area of the site make it probable that this too occurred in the late nineteenth or early twentieth century.

¹⁸ These are the subject of a forthcoming publication by Marco Maiuro.

¹⁹ DE MEO 1998: 62. The architect, however, mistakenly believed that the right door jamb dated from his presumed first phase of the church, which he dated to the mid-sixth century. He argued that the current portal was inserted in the eleventh or twelfth century, on the basis of typological affiliation with local examples.

²⁰ DE MEO 1998: 83.

It seems reasonable to interpret the lime kiln as a construction related to the building of the 'Borgo' wall and thus link it to the major reorganisation of the area in front of the church in the late middle ages. After the kiln ceased to function, the area was given over to graves. Thus far, 9 skeletons in simple earthen graves have been uncovered, but there are certainly more. The majority of these are on a north-south orientation, with the head to the north and the feet to the south. The orientation of these graves seems to follow the long north-south wall, which runs through the trench. Interestingly, these skeletons are all juveniles or adults and either male or of indeterminate gender.

The latest phase of building activity identified in the 2007 campaign dates to the nineteenth or twentieth century. It includes the rebuilding of the portal to the church and the creation of a terrace wall to the north of the churchyard. The portal, while it uses ancient inscriptions, including the entablature reading '[...]O VILLAE MAGNAE' used as a lintel and two boundary stones, marked 'V M'¹⁸, for a door sill and a lunette made of reused medieval sculpture, appears to be an intervention of a post-medieval period. (fig. 21) The stratigraphic analysis of the portal indicates that the portal and its doorjambs and lunette were inserted into the fabric of the façade. This was recognized, in part, by previous analysis of the building.¹⁹ This year's campaign of excavation has provided further information on the question, and the extent of the insertion has become clear, with the excavation of a large hole cut into the churchyard for the rebuilding of the

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Elizabeth Fentress
elizabeth.fentress@gmail.com