

## Excavations at Villa Magna 2008

Dirk Booms - Francesca Candilio - Andrea Di Miceli - Elizabeth Fentress - Corisande Fenwick -  
Caroline Goodson - Megan McNamee - Serena Privitera - Ryan Ricciardi

### Introduction

Interim reports have multiple functions. The most evident is the simple account of the discoveries of the most recent season. However, they are also useful for trying out ideas, summarizing the knowledge acquired to date, and playing with hypotheses. In the previous report this function was evident in our first attempt at the reconstruction of the *cella-coenatio* complex, which we envisioned as a covered banqueting hall. Although the reconstruction fit the evidence then available, this year's excavations effectively debunked it, showing that the foundation was not continuous all the way around the structure, and that we could therefore not expect the walls to bear such a load. Other objections had come from colleagues, complaining that the span was, in any case, too great for all but the most expensive timber the empire had to offer. The completion of the excavation of the courtyard of the *casale* and the test trench within the granary did offer new solutions to the question of the plan, and these in turn have suggested a new reconstruction. It is offered here with the same hesitation as last year's, and should not be considered definitive; rather it is simply a new proposal, open to criticism and further reconsideration. In addition, Dirk Booms proposes a preliminary view of the pavements of the complex, based on the traces remaining on the preparation, and the fragments recovered from the rooms. The skeletal material from the chapel excavated during the first two seasons has now been analyzed by Francesca Candilio; we present here an interim summary of the phasing and the anthropological results for the group as a whole. These reports will follow the summaries of work in each of the three areas written by the area supervisors.<sup>1</sup>



Fig. 1. The excavation of the courtyard at the end of 2008 (composite photograph).

### Area A, The Casale

The 2008 campaign has allowed us to complete the excavation of the courtyard of the *casale*, revealing the whole plan of this part of the villa (figs. 1 and 2). A new trench was opened in the northwest part of the courtyard in order to understand the layout of rooms already partially visible. Chief among these was the large corridor at the head of the monumental staircase, room XI. Paved with white marble *opus sectile*, this turned north at its western end and then again to the east to follow the perimeter of room XII, to which it effectively formed a three-sided ambulatory. The excavation of this room revealed a rectangular basin divided into four sections by low walls, and lined, like the whole of the room, with *opus signinum*. Unlike the marble *opus sectile* of the ambulatory, this paving is

<sup>1</sup> This paper was presented as a poster at the 17th International Congress of Classical Archaeology, held at Rome 22th-26th September 2008 on the theme "Meetings between Cultures in the Ancient Mediterranean". We are grateful, as ever, to the moral and financial support of Charles Williams and the 1984 foundation, to the Comune of Anagni, the Province of Lazio, SIM S.R.L. and the BancAnagni Credito Cooperativo.

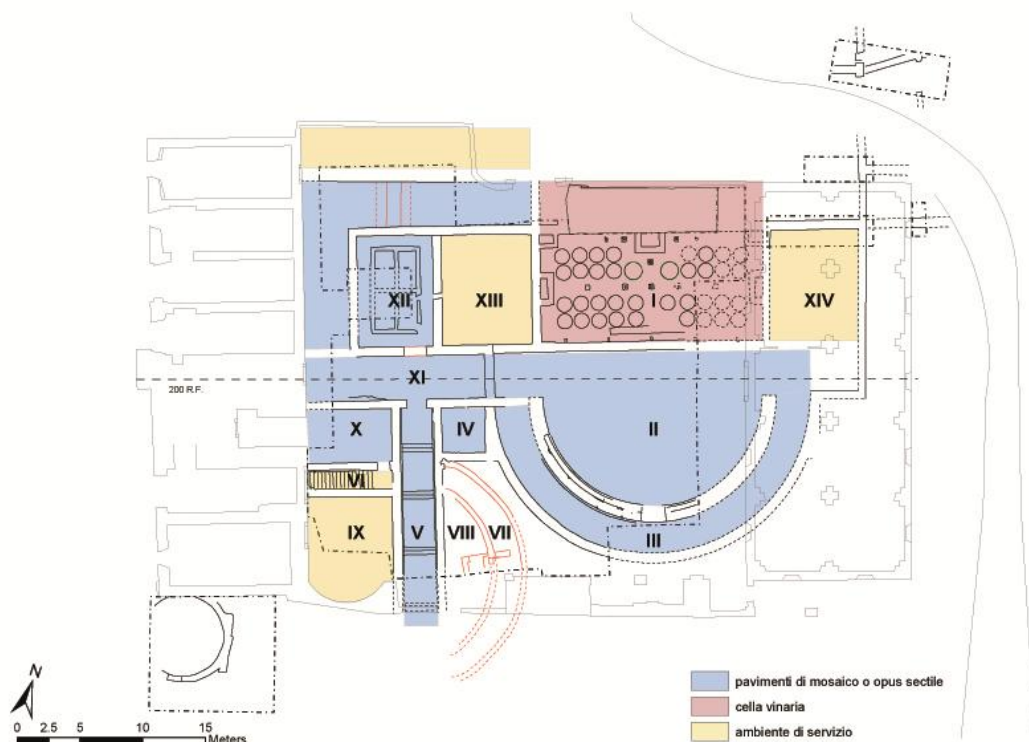


Fig. 2. The cella-coenatio complex. Reconstructed plan.

purely functional, and implies that the space was used for the processing of some liquid: whether oil or wine we are not yet sure.

At the north end of the basin, in the second phase, a drain was cut leading to a large channel inserted through the paving of the corridor and connecting to a series of vaults which we can interpret as cisterns. This suggests that in the second phase the basin simply functioned as an *impluvium*. But the lack of any connection to the cisterns in the first phase leaves the initial function of the quadripartite basin somewhat mysterious.

Just to the east of this structure, in the room that separates it from the *cella vinaria*, lies a large room, XIII, measuring 25 x 30 Roman feet. Its original paving, preserved as a substantial *rudus* in the southeast corner of the room, was cut away elsewhere and replaced by a makeup of clay, under which could be observed traces of a fistula which ran from a basin in the *cella vinaria* through this room and under the floor of XII. Where it ran under the walls it was protected by two *tegulae* placed 'a cappuccina': this covering probably originally continued under the floor as well. This arrangement, which may be interpreted as a channeling of the must after the *dolia* in the *cella vinaria* were filled, ceased to operate in the second phase, when the fistula was removed and a clay makeup introduced. Within the makeup were found three separate pieces of an *ara*, or circular block, which may have been the base of a *torcular*: these allow us to suggest that in the first phase the room was used for the pressing of the grapes after their initial treading. In the second phase the room's function evidently changed. It is not impossible that the clay makeup, new in this phase, supported *dolia* like those of the *cella vinaria*. This idea is supported by a north-south robber trench similar to the second-phase trenches in the *cella*. Each of these removed a row of *dolia*, and presumably channeled wine from the pressing floor towards the remaining *dolia*. It is not impossible that room XIII saw a third such channel, which fed the original *dolia* removed from the *cella* and subsequently inserted in the next room.

Traces of medieval reuse of these spaces were abundant. The robbing of the channel would date to this reoccupation of the site. A series of postholes with stone wedges were also found. Of these, some were clearly constructed against standing walls, and were designed to support wooden roofs over the spaces defined by the Roman walls. However, not all of the postholes can be interpreted in this way, and further work both on the finds and the typology of the holes will be needed in order to suggest a convincing interpretation for them: it is clear that we are dealing with more than one phase of wooden buildings.

In the southern part of the courtyard, excavation continued in the area immediately to the east of the monumental staircase, which was certainly exterior to the building in its first phase. The second-phase exedra, VII, revealed in 2007, was entirely excavated (fig. 3): a tile collapse found on the floor indicated the nature of its roofing, while collapsed wall plaster revealed a finely-executed decoration of imitation marble. This consisted of square panels in *giallo antico*, *serpentine* and *cipollino*, framed with darker borders (fig. 4). Other fragments clearly belonged



Fig. 3. Casale, exedra.

to a hung vault, with a rectilinear decoration on a ground of deep pink (fig. 5). The floor was paved with a mosaic in fairly large white tesserae, with a black border running along the walls. Both the decoration and the pottery recovered to the west of the structure suggest a date no later than the end of the third century for the construction of the exedra. Questions remain as to how it was entered, and what its function was.

Before the construction of the exedra, this whole area was paved with a rough cement pavement that sloped sharply away from the apse of the *coenatio* towards the outside of the monumental staircase, where a substantial covered drain was found. This drain, running north-south along the side of the stair, presumably served to remove the rainwater from the roofs of this area of the building.

Because of its lower level, the stratigraphy of the collapse of the semicircular walk was better-preserved than that of the rest of the building from the damage caused by the building of the *casale* in the nineteenth century. This allowed us to observe what was probably a medieval ground level outside it, cut by a substantial pit and numerous postholes: this activity is tentatively dated to the tenth century A.D. A trench just to the south of this area was initiated in July: here too the medieval stratigraphy seems to be excellently preserved, and we hope to obtain a clearer view of the use of the site in this phase.

To the west of the *cella* / *coenatio* four smaller trenches (G I-IV) were excavated in order to define the plan and the limits of the building in that sector. Inside the granary of the *casale* a long trench laid out along the line of the north side of the *cella* revealed a wall symmetrical to the north wall of room XI and terminating at the same point, suggesting that the plan of this wing was symmetrical to that of the west wing of the building: the plan on fig 2 shows it as room XIV. The pavement of the room was missing, due to the construction of the granary, but the first Roman deposit was, again, of clean clay. It is not impossible that this room, too, contained *dolia*.

Outside the building, trenches GII and GIV confirmed that the structure continued to the north and east. It was therefore decided to excavate a larger trench, G3, on the other side of the modern road in order to define the limits of the building to the north. This trench proved surprisingly complicated, revealing what appears to have been a *cryptoporticus* supporting what might have been a loggia. It does appear to have constituted the northern limit of the building: a further wall running north can probably be interpreted as a buttress, as all the surfaces associated with it were of earth.

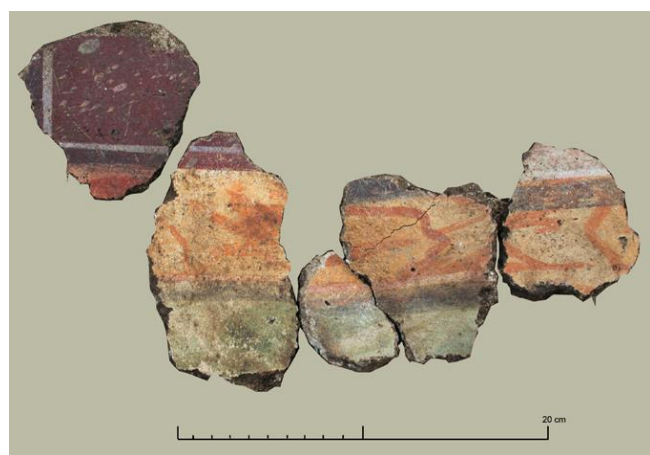


Fig. 4. Exedra, wall plaster.

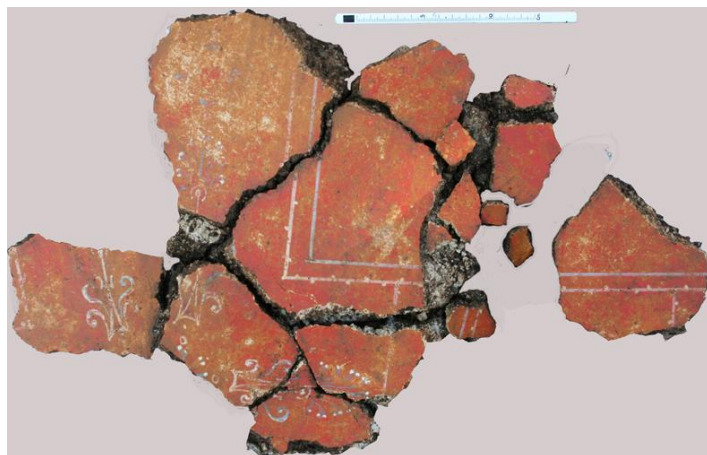
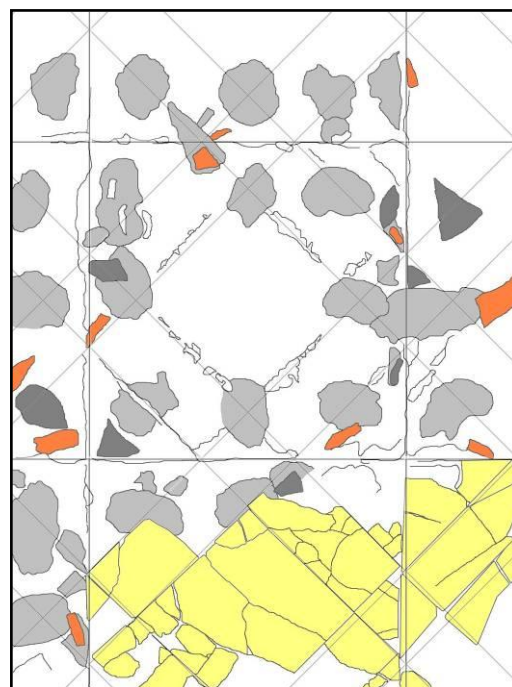


Fig. 5. Exedra, plaster from the hung vault.

Fig. 6. Drawing of part of the pavement of room X. In yellow, the *in situ* marble fragments; in dark grey, the *in situ* slate; in yellow grey, imprints of slate; in red, other *in situ* material used as adhesive instead of slate. The positions of the slate indicate that the pattern of the remaining panels was used for the whole room.



The earliest floor of this structure was not reached, but we estimate that it was at the level of that of the vaults on the west side of the building. An entrance into this space from the north was blocked in a subsequent phase, and a series of new walls constructed. These were painted with fairly functional white paint with panels outlined in red. However, the collapse of the upper floor consisted of numerous tesserae and much wall plaster, displaying panels with deep blue borders on a white ground, decorated with motives including birds, a dolphin, and garlands (fig. 6). This decoration may date from the first phase of the villa, and certainly decorated a reception room or covered loggia.

Andrea Di Miceli

### The Opus Sectile Floors

Thus far, four marble floors have been uncovered at the excavations of the villa. The first one, a marble *opus spicatum* floor, is located in the *cella vinaria*. As mentioned in a previous report, it consists of *spicatum* blocks of two different types of marble, *portasanta* (*marmor chium*) and *giallo antico* (*marmor numidicum*), with average measurements of 2–3 x 10–12 x 5–6 cms. While part of it remains preserved *in situ* in front of the *calciatorium* and in the centre of the room, most of it was robbed out at the moment that the *dolia* were removed. However, considering that a square meter of the pavement consists of ca. 350 of these *spicatum* blocks, their enormous number in the rubble fill of the room can probably be considered as the remains of the complete pavement.

In room X, parts of two adjoining panels of an *opus sectile* floor were excavated<sup>2</sup>, as well as smaller *in situ* fragments of the same floor (fig. 7). Although the other panels have been robbed, the motif can still be discerned from traces in the mortar preparation, where both the imprints of the slabs and the presence of pieces of slate at joints between slabs can still be found. The motif is Guidobaldi's QOrQ<sup>3</sup>, with a module of ca. 60 cms (two Roman feet), with panels using either white *marmor lunense* with *portasanta*, or *giallo antico* with *pavonazetto* (*marmor phrygium*). Several examples of this motif are known from antiquity<sup>4</sup>, but of greatest interest are the parallels at "Livia's" villa at Prima Porta<sup>5</sup>, Trajan's villa at Arcinazzo<sup>6</sup> and a room at the Casa delle Vestali at Rome<sup>7</sup>, the first two because they are imperial villas, the last one because the distribution of the marble types in the motive is identical to our room X<sup>8</sup>.

Four panels of the pavement could be completely reconstructed at their original location. One of them has the central square in *giallo antico* with surrounding rectangles in *pavonazetto*, one is the exact reverse of that and two have the central square in Luna marble, with rectangles in *portasanta*. By following the pattern of the Casa delle Vestali and considering the location of our

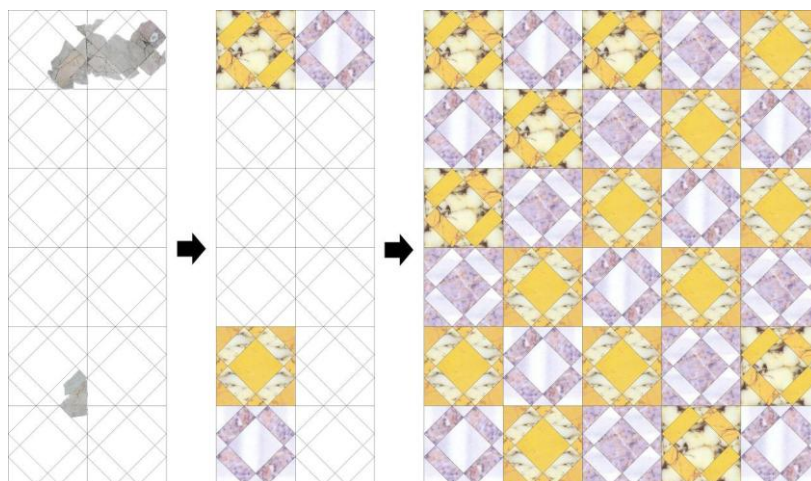


Fig. 7. Room X: locations of the *in situ* crustae in relation to each other; the reconstructed panels in relation to each other; the reconstructed floor pattern.

<sup>2</sup> Cf. FENTRESS *et al.* 2007.

<sup>3</sup> GUIDOBALDI 1985: 183.

<sup>4</sup> GUIDOBALDI 1985: 187-188.

<sup>5</sup> Room 6; cf. CARRARA 2001: 144-148.

<sup>6</sup> Room XVI; cf. MARI and FIORE CAVALIERE 2001: 427-448.

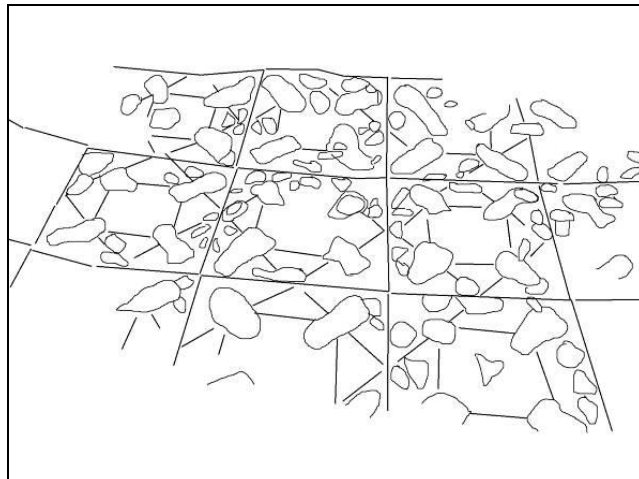
<sup>7</sup> GUIDOBALDI, 1985: 187-188.

<sup>8</sup> Combining *pavonazetto* with *giallo antico* and Luna with *portasanta*; the pavement has been assigned a Hadrianic date: VAN DEMAN 1909: 33.



four panels, the reconstruction shown here appears most plausible, producing a doubling of rows with *giallo antico/pavonazetto* panels between alternating rows of Luna/*portasanta* panels.

Of the marble pavement in room IV of our complex, no remains *in situ* have been preserved. However, using the imprints of the slabs and the location of the slate fragments, the pattern of the pavement could be reconstructed (figs 8 and 9). The motif is Guidobaldi's Q3, with a module of ca. 60 cm (two Roman feet), which is attested in many examples from the early empire until at least the fourth century A.D.<sup>9</sup> However, the presence of the large pieces of slate in the corners of the panels is noteworthy, as they extend until the limits of the panel. As these pieces of slate



Figs. 8-9. Floor preparation of room IV. The drawing of the imprints of the slabs and the slate makes it possible to reconstruct the floor pattern.

were only positioned in places where joints between different marble pieces existed, a pure Q3 motive would need only smaller pieces in the places where the central square touches the corner triangles. Therefore, the presence of additional features in the corners of the panels is considered here, most probably lozenges. The motif in this room would then be Guidobaldi's Q3p, which is equally common from early imperial times until late antiquity, with examples at the Domus delle Colonne and the Domus di Amore e Psiche, both at Ostia (fig. 10)<sup>10</sup>. However, early parallels can be found at the imperial villa at Sabaudia, built by the emperor Domitian, where the motive was used in three different rooms of a bath complex<sup>11</sup>, the same complex where also the only other attested example of marble *opus spicatum* is attested<sup>12</sup>. Since the excavation of room IV yielded only a very few fragments of marble, the different types used in the motive cannot be reconstructed with certainty. Additionally, the three examples at the villa of Domitian are all composed of different types. However, it is more than plausible that the same four types from the previous room were also applied here.

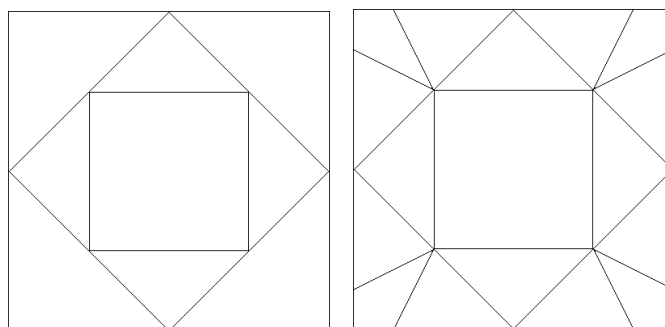


Fig. 10. Possible interpretation of the pavement in room IV. On left motive Q3, on right motive Q3p.

A last *opus sectile* floor was discovered during the first season, but its extents were only realised this year. The pavement is located in the corridor XI and consists of rectangular slabs of the same dimensions (ca. 45 x 75



Fig. 11. Floor preparation of corridor XI. The pattern of the floor decoration is visible, just as the space between the slabs for listelli.

<sup>9</sup> Most recently in the late antique *domus* underneath Palazzo Valentini, Rome.

<sup>10</sup> BECATTI 1961: 28, 180.

<sup>11</sup> RIGHI 1980: for the rooms with pattern Q3p: 103, 106-109.

<sup>12</sup> PENSABENE 2002: 174.

cms or 1,5 x 2,5 roman feet) in alternating courses (fig. 11). Only parts of two slabs have been preserved *in situ*, one in *pavonazetto*, the other in Luna marble. Other marble fragments from the room consist of *crustae* in *portasanta*, this way indicating that also for this floor, the four types from room X were used, *giallo antico* being the fourth. The motive is extremely common and can often be found with small *listelli* separating the slabs themselves, as for example at the Villa Adriana<sup>13</sup>. In fact, *listelli* between the slabs are likely, as the imprints in the mortar seem to suggest there was a space of ca. 1–2 cms between the slabs.

Dirk Booms

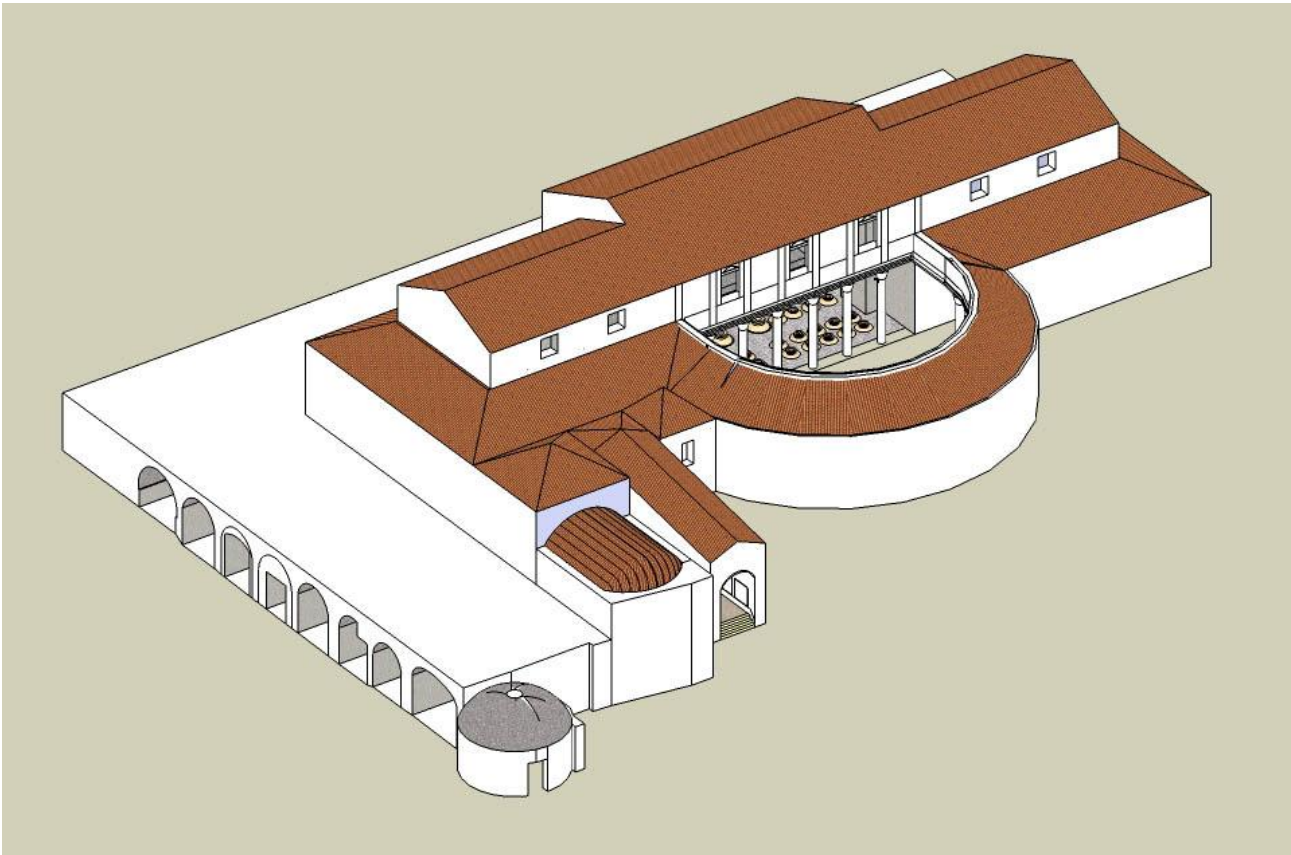


Fig. 12. The reconstruction of the villa (Dirk Booms).

#### The Reconstruction of the Villa (2) (fig. 12)<sup>14</sup>

The new data are open to a number of interpretations. The one that, for the moment, seems most plausible, and will be tested next year, is that the *cella-coenatio* complex occupies the center of a symmetrical building, perhaps with a loggia occupying the western, eastern and northern sides. The complex was entered via the monumental stair and the corridor, XI. From here it was possible to enter the room with the central basin, to turn left and walk around it, or to turn right and enter the open exedra at the heart of the building. The first question is whether room XII was covered. If the pool is to be interpreted as an *impluvium* even in its first phase this would be implied, but in fact there is no first phase drain from the pool, nor is its quadripartite division a trait of *impluvia*. If it was used for any process to do with the wine it would have to have been covered and kept reasonably dark. The solution tentatively suggested here creates a uniform roof over rooms XII and XIII, at least in the first phase. However, this roof, even with a clerestory arrangement, as here, would leave the corridor almost impossibly dark, and suggests that its western end was lit by fairly large windows. We have thus reconstructed the space over the vaults which today support the *casale* as a terrace, perhaps covered by a pergola or loggia, without any hope of demonstrating it in the future.

The two semi-circular walls of the large exedra are reconstructed as a portico with a high entablature which allows the roof to slope outwards: no traces of a drain were found inside the room, while excavation to the south

<sup>13</sup> GUIDOBALDI 2004: pl. XXI.

<sup>14</sup> The reconstruction drawing is the work of Dirk Booms based on suggestions by Mark Wilson Jones and Elizabeth Fentress: it went through numerous incarnations through a highly productive exchange of emails.



showed that the surface outside the building was constructed so as to direct rainwater from the roofs toward a large drain along the line of the stair. The line of the entablature continues along the wall of the *cella*, while above it windows echo those of the clerestories to the east and west. The *stibadium* couch would have been placed outside, where it would have been in shade from 5 o'clock onwards. From this position, the diners would probably have viewed the treading of the grapes on the *calculatorium*. This suggests that the wall that separates the *exedra* from the *cella* was a stylobate. This view is supported by the wide foundation for steps which lead up to it from the lower floor of the *cella*<sup>15</sup>. It is possible, though less likely that the visual connection between the two was simply through a door. The rooms to the east and west of the *cella*, XIII and XIV would have served for the *torculares*, at least in the first phase.

The only unsymmetrical elements in the plan, for the moment, are the monumental stair and the rooms on the lower floor that we are currently interpreting as part of a small bath complex, reached by the stair which runs down from room X. The plan and function of the complex will be investigated next year, along with the approaches to the building from the south.

Dirk Booms, Elizabeth Fentress



Fig. 13. The barracks from the east.

#### Area D

In the second year of excavation in Area D, we were able to expose enough new material to develop preliminary analysis and phasing for the site. The trench nearly doubled in size, exposing more of the service structure first discovered in 2007 and more of the well-preserved Roman road that heads east down the hillside (fig. 13). This road appears to have been constructed in several phases, the first of which seems to form the earliest occupation in this area, as evidenced by the preparation for it visible in the section of a large ditch that subsequently bisected it. After the initial road was constructed, a long wall that runs the length of the trench was built to its north, possibly functioning as a retaining wall for the northern border of the road. This retaining wall was then razed in order to form part of the preparation for the later well-paved road currently visible. Its alignment renders its association with the road from Anagni to the villa mentioned in a Severan inscription (*CIL* X 5909), impossible: this is probably to be identified with the existing alignment of the access road, at 90 degrees to our road.

The building, first seen in magnetometry and first uncovered during the 2007 season, was constructed soon after the paving of the second-phase road and seems to have a direct relationship with it via a southern-facing

<sup>15</sup> Here we must note Henry Hurst's objection that the verb used by Marcus is '*audivimus*', and that the diners did not necessarily see the treading of the grapes. However, a closed solution makes it impossible to explain the step, which runs almost the whole length of the wall.

portico. The burned remains of the roof, delineated in 2007, were removed to reveal deliberate steps in the portico as it paralleled the slope and direction of the road. The service nature of the regularly planned structure is evident from the fact that it contained reused architectural marble but none of the extravagant trappings, including mosaics, wall paintings, and marble revetment, found in the *cella vinaria* (Area A). The long sides of the building, running E-W, seem to have been constructed first, with the dividing walls, running N-S, following soon after. These N-S walls correspond to pilaster bases on the southern side of the portico. The portico pilaster bases themselves consisted of *bipedales* set into concrete, and correspond to the steps in the floor of the portico. The structure consisted of a series of symmetrical rooms, measuring approximately 10 x 12 Roman feet, on either side of a central alley. These rooms, which often contained fragments of *opus signinum* flooring collapsed from higher stories, appear to have been individual dwellings. Each room was paved in a beaten earth floor and contained a hearth together with a single *dolium*, often located in the southwest corner of the room, and occasionally fragments of querns (fig. 14). Other domestic items found within the rooms include cooking ware, storage jars, and in one case, a large fragment of an iron brazier. The rooms, which number at least five on each side of the E-W corridor, seem to be individual dwellings, and as a whole comprise barracks or possibly slave quarters for the staff of the villa.

The excavation of the alley between the rows of rooms revealed a drain that existed in multiple phases of the building. The earliest phase remains unexcavated, but a concentration of rare late-antique glazed pottery, together with standard African Red Slip ware forms such as Hayes 67, suggests that after the initial construction of the drain, it was recut during later occupation phases. The rich fills of the drain, which contain a plethora of bone hairpins and tapestry needles



Fig. 14. Room 6, showing quern, hearth and dolium pit.

indicating the presence of females within these dwellings, will be the subject of a detailed study. The latest deposit appears to date to the middle of the fifth century on the basis of both pottery and coins, and we assume that the destruction of the building occurred shortly thereafter. The origin of this destruction remains obscure: although the portico clearly burned down, there are few traces of burning in the rest of the building, and the very coherent wall collapse, with the coursing still preserved on the ground, suggest a sudden phenomenon, such as an earthquake, rather than a slow abandonment. A pronounced folding in the road surface may have occurred at the same time, although subsequent movement of the underlying clay cannot be ruled out. The robbing of some of the walls after this event shows that occupation continued somewhere in the neighbourhood.

Following the destruction of the building, the area seems to have been abandoned for a period of time before people returned and constructed new structures, the footings of which cut through the destruction of the original structure. A substantial robber trench running along the west end of the site but apparently respecting the road is not yet interpreted. It may represent a fortification, related to a ditch that runs across the entire trench some 8 metres away. A number of very large and deep post-holes follow no very consistent pattern, and although there are some rare medieval sherds we are hardly certain of the period that the postholes represent: it is not impossible that they are relatively modern, relating to telephone or electricity poles.

Area D offers a view into the underpinnings of an imperial villa. It is not yet clear whether it was built for the workforce or the guards of the villa: without either the eastern or western ends of the buildings we are unable to establish the degree to which the space was enclosed, nor the number of rooms the structure contained, although we should bear in mind that it occupied two stories. Like the *cella/coenatio* complex this is a unique building, for which we have no parallels in villa architecture – although its form is paralleled in army barracks throughout the empire. Furthermore, two Byzantine *pentanummi* found over the destruction levels show that life in Area D continued beyond the fifth century, providing insight into daily existence throughout the life of an imperial villa and its use beyond the Roman period.

Serena Privitera, Ryan Ricciardi



## The Monastery

The earliest structure to be identified archeologically in this area is a limestone pavement which may well be late Roman. The limestone paving stones, smooth, white and measuring between .25 and .40 m long, appear at the bottom of deep cuts and reused in later structures in the western parts of trenches BI and BII. There are as yet no structures associated directly with this paved area, though, it seems likely that it was a paved area in front of the first church at the site. The pavement and the column base inside the church are at nearly the same level, -1.20 m.

A number of tombs were built on top of this pavement. These have been revealed in the excavation of some trenches and cuts, such as against the limit of the trench and at the bottom of the later large cut for a limekiln. These tombs were constructed on top of the limestone pavement and built mainly of reused Roman tiles and slabs of marble. Some are cut into an *opus mixtum* wall along the northern limit of the trench. The human remains associated with these graves are partially articulated and the tombs were left to be excavated in 2009.

The current church of S. Pietro in Villamagna preserves much of its apparently original form: a single-apse basilica, internally divided into nave and aisles with a colonnade. (fig. 15) The one preserved column base, brought to light in excavation of the Chapel (Mon C II), is a Roman marble base, reused in the church's northern aisle colonnade. Excavation in 2008 has provided new data about the form of the early church. The southern portal of the church façade now has a visible threshold, at a level -.865 m. As was clear in 2007, a narthex was constructed against the façade of the church and over the paved area in front of the church. The narthex had doors to the south and to the north, which were later blocked in, and an opening in the centre aligned with the apse of the church. The threshold of the southern door of the narthex is at a level of -.96 m. Inside it, a section of marble pavement is visible. Both are slightly below the threshold of the church's southern portal. We previously suggested that the addition of the narthex happened during the sixth century, based on the formal associations that this architectural element shares with examples at Rome (of the fifth century) and Classe (of the sixth century). The presence of a residual *pentanummus*, of Emperor Justin I (reg. 518–27) or Justin II (reg. 568–78), in fills from the Chapel, and fifth- and sixth-century imitation imperial coins in the fills of BI supports this chronology<sup>16</sup>.

The next major phase of construction in this area saw the destruction of the narthex and the addition of a wide, tall, rubble-built wall<sup>17</sup> bonded with a hard white mortar running N-S and abutting the north side of the remains of the narthex (fig. 16). 19 meters to the east is a parallel wall of the same rubble masonry. Together with the small E-W walls which abut the latter, these two walls enclose an area north of the church, perhaps an open courtyard.

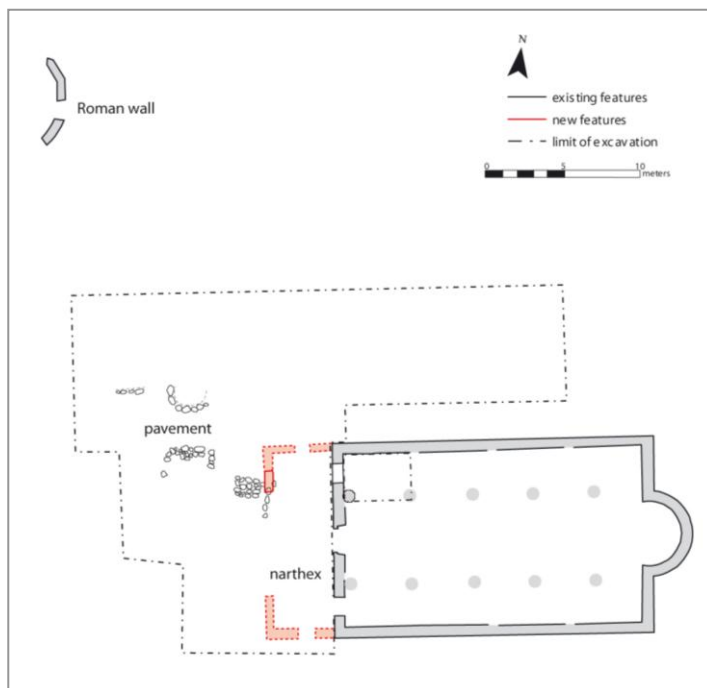


Fig. 15. Plan of S. Pietro in Villamagna and its environs.

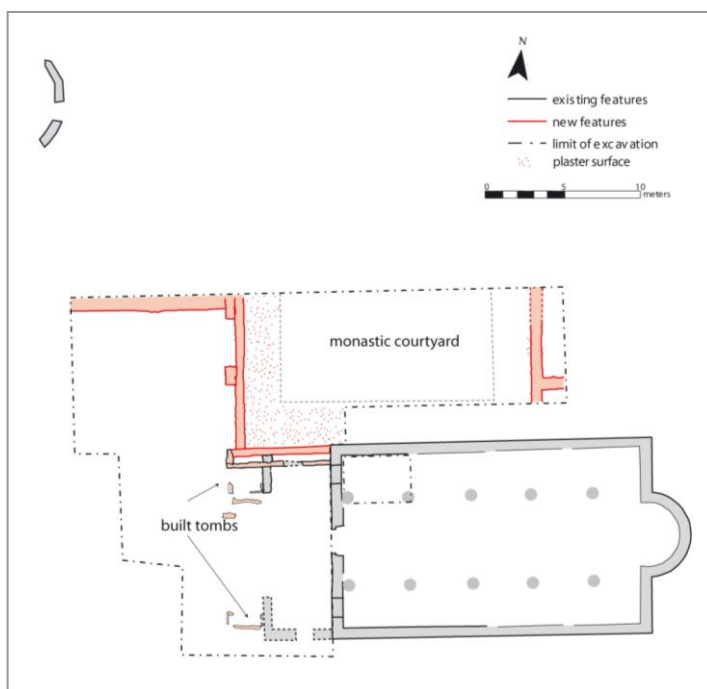


Fig. 16. Plan of S. Pietro in Villamagna and monastic enclosure.

<sup>16</sup> CO 1 comes from (3020), and CO 33, 34 come from BI (2295).

<sup>17</sup> [4005].

The western wall has two buttresses on its western face, suggesting that this was the western exterior wall for a structure located adjacent to the church. Given the size of the space, it must have been open to the sky and it was floored with a sequence of beaten earth and plaster pavements identified during 2007. Traces of these are preserved against the eastern walls. The scale of this masonry is monumental for the early middle ages and these walls may have enclosed an area reserved for the monastery of S. Pietro in Villamagna, established in AD 976 according to the preserved foundation document<sup>18</sup>. This area to the north of the church, may have been the earliest communal space for the monks, as opposed to the clerics and laity who used the church and the church yard.

In front of the church, the construction and layout of several rectangular walled tombs oriented E-W followed the partial destruction of the narthex. These built tombs contained multiple burials and were fairly uniform in size and depth. Five have been fully excavated: tombs A, B and C, which were emptied and reused in a later phase, tomb E, which contained 6 consecutive inhumations, and tomb F, which contained 1 inhumation. Individuals were buried in an extended supine position with heads to the west and the feet to the east. The significance of this orientation lies in Christian preparation for the afterlife, such the individual is prepared to rise up to meet God at the Last Judgment<sup>19</sup>. After the first individual had been buried, the tomb was filled with earth and reopened subsequently in order to insert a additional individuals. These later interments disturbed the earlier burials. Their disarticulated bones were retained within the tomb and make up the fills of the subsequent burials. Reusing tombs was commonplace in Italy, increasing with frequency after the eleventh century<sup>20</sup>. This type of tomb, built with large semi-rectangular stones, has been dated both to the early medieval period - late 5<sup>th</sup>-8<sup>th</sup> centuries in Northern Italy and France - and to the 12<sup>th</sup>-14<sup>th</sup> centuries in north-central Italy and Norman southern Italy, though the relative chronology of Villamagna would here suggest a date in the 10<sup>th</sup>-11<sup>th</sup> centuries<sup>21</sup>. Although the sample size is small at present, the variety in age and sex of the individuals buried suggests that these tombs were used by the lay population and may even have been family plots. These graves are largely devoid of grave goods or personal belongings associated with them. In 2008, a number of graves were uncovered to the west, which also pre-date the construction of the bell-tower.

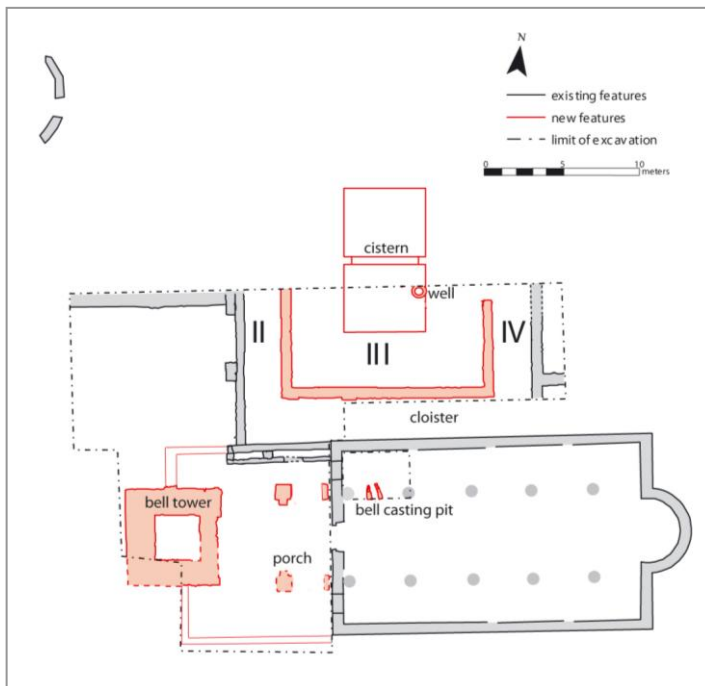


Fig. 17. Plan of churchyard, belltower, porch, and earthen graves.

As reported in 2007, the churchyard underwent a radical transformation with the construction of a bell-tower and porch in front of the church (fig. 17). No further data on the chronology of these additions was provided by the campaigns of 2008. Our hypothesis remains that these buildings went up between the late eleventh or twelfth centuries. Freestanding bell towers are known from the late eleventh century in this area: S. Michele Archangelo, Itri (11<sup>th</sup> century), S. Angelo in Formis (1072–87, rebuilt in 12<sup>th</sup> century) and the Duomo of Anagni (late 11<sup>th</sup> century-12<sup>th</sup> century)<sup>22</sup>. If the bellcasting pit in the chapel of the church predated the laying of a cosmatesque pavement such as that which is preserved in another part of the church, which resembles pavements of the 1120s-30s<sup>23</sup>, then we might imagine that in that pit was cast a bell for the tower which went up ca. 1100. This remains conjectural, however.

Between the walls identified above as the first monastery walls, a new structure, denominated Space III, was built in a strikingly well-executed ashlar masonry, centred on the walls of Building I. Excavations of 2008 revealed its E-W limits, centred on a large double cistern. Like the structure it replaced, Space III was open - too large to have been roofed - and paved with a cement floor which now has detached from the walls and slopes down towards the centre of the cistern below. The well at the corner of the cistern allowed water to be drawn from it. The position of Space III carves out a symmetrical corridor around the new space defined by the walls of the church and the earlier

<sup>18</sup> FLASCASSOVITTI 1994: no. 1.

<sup>19</sup> YOUNG 1977.

<sup>20</sup> ARTHUR *et al.* 2007. See also MARAZZI *et al.* 2002.

<sup>21</sup> See, for example, CORSETTO 1998: 224; GELICHI 2001: 81; GELICHI and ALBERTI 2003. For Puglia, see ARTHUR *et al.* 2007, where the first burial in a tomb constructed of large stone slabs lining an excavated trench is the second half of the thirteenth century, suggesting a similar date for the construction of that tomb.

<sup>22</sup> See discussion of local belltowers in MARAZZI 2006: 133-134.

<sup>23</sup> Analysis of the cosmatesque pavement was published in the interim report of 2007.



walls. The new walls may have been perforated with arches or loggias onto the open area, letting light into the corridors; colonettes found in the destruction layers may have been part of its fenestration. A carved arch in the eastern wall, in correspondence with the well, has now fallen face downwards. This configuration, located to the north of the church, suggests that it was the cloister of the monastery, reserved for the use of the monks for meditation, communication and transit from one part of the monastery to the church. With the twelfth-century homogenization of monastic plans under the Cistercians, monasteries of other orders adopted some of these standards, including the location of the cloister in direct proximity to the church and often to the north<sup>24</sup>. This phase of building thus reorganised the areas designated for the monks and those for the laity and clergy. The cloister was separated from the churchyard as the door of the former narthex had been blocked and used for tombs; presumably the monks had a different entrance for the church.

The area in front of the church was also walled off from surrounding areas. N-S walls abut the bell tower and E-W walls follow the lines of the narthex walls to create a walled area for the graves. A coherent group of sixty-nine earthen burials have been uncovered so far from this phase of occupation. At some point while the porch was in use, a walled tomb, (tomb D) was built against the porch's foundations. It contains 3 inhumations, the earliest of which is a 20-30 year old adult female, who lies below a 19-20 year old adult female, who is cut by the grave of a 2-4 year old child.

The porch was then destroyed and the area in front of the church was given over to burials. Several beaten earth surfaces sealed over the stone-built tombs and the ground level in the churchyard rose. Excavations in 2008 have made it clear that the majority of the earthen-grave burials in the churchyard postdate the bell tower, and thus date from the 12<sup>th</sup> to the 14<sup>th</sup> centuries. A number of discrete phases have been identified on the basis of the stratigraphy; the tombs can be grouped into two main periods of burial. The earliest period of burials in the main churchyard consists of several overlapping rows of graves laid out methodically on a W-E orientation with similar burial practices and grave orientation, apparently bounded to the west by the bell-tower and a series of N-S walls abutting it, and to the north and south by E-W walls on the lines of the former narthex. (fig. 18a,b) After the destruction of the porch at some point in this phase the burials continued in the areas in front of the church. (fig. 18c,d).

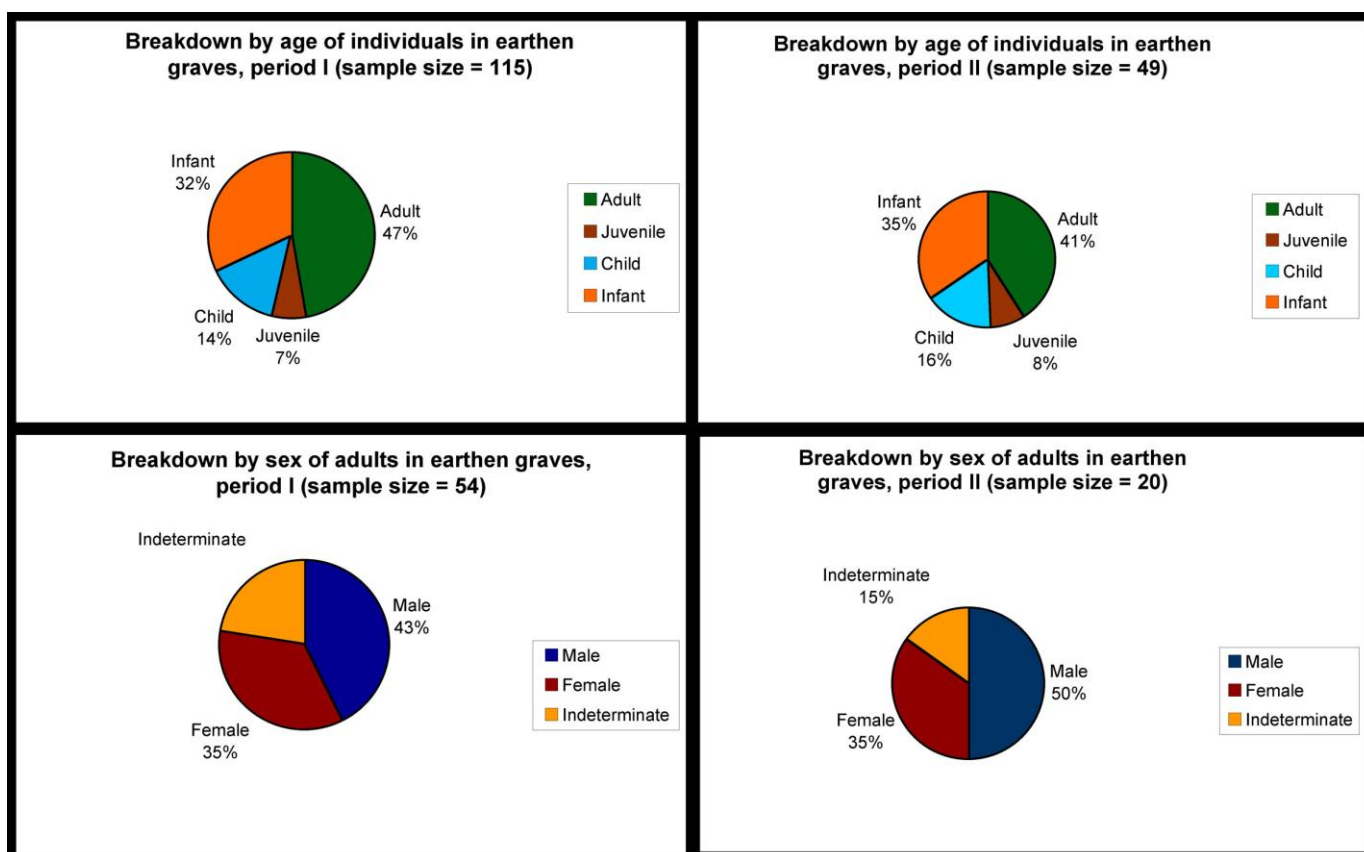


Fig 18 ab,cd. Charts of age and sex data for earthen graves.

<sup>24</sup> On this phenomenon, BRUZELIUS and GOODSON 2005.

Thus far, 115 graves have been uncovered and many more await excavation in the 2009 season. The condition of bones varied, but in general, preservation was good. The burials are uniformly oval-shaped earthen graves containing a single primary inhumation. All the individuals were laid out in an extended supine position with arms clasped either over the pelvis or torso, and the majority follow a W-E orientation. The only exceptions to this pattern are a few burials on a N-S orientation clustered together in the southwest corner, parallel to the western boundary wall. The orientation of these graves seem to be related to constraints on space within the cemetery rather than anything else. The lack of evidence of nails and the oval shaped nature of grave cuts when visible demonstrate that wooden coffins were not normally used. It is more likely that the normal procedure was for bodies to be wrapped in a shroud and the taphonomic processes seem to confirm this hypothesis (fig. 19). Both genders and all ages are present, and it seems likely that this was the lay cemetery of the abbey church<sup>25</sup>.



Fig. 19. Photo of HRU 2599, showing the position of the skeleton in the earthen grave.

At some point after the construction of the cloister, two walls were built leading to the well. The structure may have been a small wellhouse to draw water, after the cloister fell out of use, or possibly part of the landscaping of the cloister. This would have been the last construction activity during the occupation of the monastery. After the construction of these walls, the cloister was filled with debris, mostly building materials, discarded pottery and large quantities of marble fragments of Roman revetments, pavement and *opus sectile* pieces. The walls of the cloister were later despoiled down to the foundations.

After the suppression of the monastery, the church continued to be used as the centre of a seigneurial estate, fortified at some point by massive walls, which abut the western façade of the church. The construction of the funerary chapel in the church and the burial of what was probably a family group there (discussed below) likewise points to a shift of the control of Villamagna away from the ecclesiastical institution towards a local aristocracy, but the exploitation of the lands and cult use of the church continued for a period. The site is referred to as a '*Castrum dirutum*' in 1478, and subsequent maps of the area make mention of the site as a ruin<sup>26</sup>.

<sup>25</sup> The age breakdown is as follows: Adult = 47%; Juvenile = 7%; Child = 14%; Infant = 32%. Of the 54 adults, 43% were male, 35% were female and 22% were of indeterminate sex. The methodologies for determining sex and age at death of the individuals naturally varied for the age of the individual. Sexual characteristics were assessed using the criteria of ACSADI and NEMESKÉRI 1970. The indicators of age for infants and subadults were dental development (UBELAKER 1989), long bone diaphyseal length (STLOUKAL and HANAKOVA 1978), metric and morphologic changes (SCHEUER and BLACK 2000: 2004), and the fusion of ossification centres (FRANCE and HORN 1989; UBELAKER 1989). For adults, Francesca Candilio and her team used a combination of four different methods: endocranial suture closure, ectocranial suture closure, dental wear and modifications of epiphysal bone (JNemeskéri, HARSÁNYI and ACSÁDI 1960). Unfortunately they never had all four parameters (one requires either an x-ray or the cutting of the head of the humerus and of the femur) and rarely more than one or two were available. In most cases it was therefore impossible to apply fully. Moreover, the three parameters all make use of the cranium, and often the skeletal remains had damaged or missing crania. Other methods were therefore added to age a greater number of individuals. These included chronological metamorphosis of the pubic symphysis (TODD 1920: 1021) and chronological metamorphosis of the auricular surface of the ilium (LOVEJOY, MEINDL, PRYZBECK and MENSFORTH 1985).

<sup>26</sup> See FENTRESS *et al.* 2006: 6. For early maps, see for example the map of G.F. AMETI in 1693, cited in FIORANI 1996: 17.



The area to the west of the cloister, which we have assumed was outside the monastic precinct, was filled with rubble and debris to the height of a meter after the destruction of the monastery. Into this deposit was cut a round hole, measuring some 3 to 2.75 m in diameter and 1.21 m deep. This hole was then lined with large rocks packed with earth to form a lime kiln. The technique of construction and the scale of the kiln follow those known from ethnographic research in the Mediterranean and ancient textual descriptions<sup>27</sup>. In the *prae-furnium* near the mouth of the kiln this packing was coursed and particularly well built, in order to feed the kiln over the several nights and days that it took to fire the limestone blocks with which it was filled<sup>28</sup>. The kiln was floored with terracotta tiles pressed into the clay stratum underneath the late Roman pavers. During the life of the kiln a number of changes were made, the closing up of the *prae-furnium*, its rebuilding and the construction of two small walls and two successive lime pavements outside the structure. Each of these has post holes for riggings around the kiln and storage pits. To the south, a vat was constructed to slake the fired quicklime for a length of time (anywhere from weeks to years) in order to render it adhesive<sup>29</sup>.

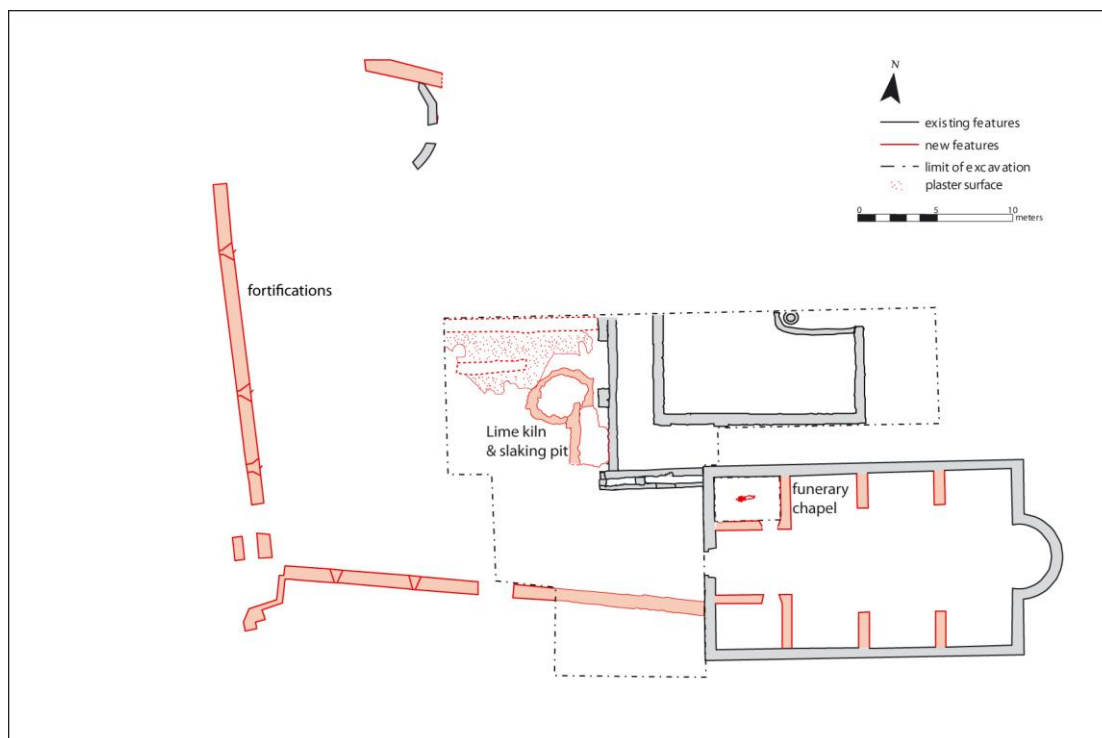


Fig. 20. Plan of church at the centre of a fortified seigneurial estate.

The limekiln was most probably constructed to burn limestone for the hard mortar used in the large fortification constructed around the church after the churchyard and monastery buildings were abandoned, as reported in the preliminary report for 2007<sup>30</sup> (fig. 20). The proximity of the kiln and the slaking pits to the finished wall are typical of on-site lime burning kilns, indeed the transport of wet slaked lime ('fat lime') is unwieldy, and we can be fairly certain that the kiln fired lime for building the wall.<sup>31</sup> A kiln of this size (cubic volume of 31.42 m<sup>3</sup>) could have produced 18.85 m<sup>3</sup> of quicklime, according to the algorithms produced by Janet Delaine for her analysis of the Roman baths of Caracalla - a distant relative of the medieval wall, but the lime burning and mortar technology would have probably been similar<sup>32</sup>. Delaine's calculations for the quicklime needed for the mortar of Roman walls are less helpful: her research focused on faced rubble construction, which used much more mortar, or dressed ashlar masonry, which used none. For the purposes of discussion, however, let us assume that the bonded rubble walls of the fortification [2001] and its associated walls needed  $\frac{3}{4}$  of the mortar that a faced rubble ('concrete') wall needed, a figure probably larger than necessary. The visible remains of the fortifications measure about 50 metres and are .90m. wide. If we imagine a minimum height of 5 metres (including foundation) we can calculate a minimum volume of 225 m<sup>3</sup>. Working from Delaine's estimates for other types of masonry, these walls would have needed between .03 e .04

<sup>27</sup> See, eg Cato, *de Agri*, XLIV, 38, discussed in ADAM 1994: 65-71; DELAINE 2000.

<sup>28</sup> On firing times based on ancient sources, see ADAM 1994: 71; DELAINE 2000.

<sup>29</sup> ADAM 1994: 71-72.

<sup>30</sup> FENTRESS *et al.* 2007.

<sup>31</sup> ADAM 1994: 72.

<sup>32</sup> DELAINE 1997: 111-114; 2000: 260-261.

m<sup>3</sup> of quicklime per m<sup>3</sup>, and thus the standing portion would have required between 6.7 and 9 m<sup>3</sup>. We do not know the total length of the fortifications. Any excess lime could have been sold, adding income to the estate.

After its abandonment the lime kiln was filled with clayey soil and rubble, and seventeen individuals were later buried in simple earth graves cut into its fill, and the surrounding area. Twelve graves are clustered together west of the *praefurnium* of the kiln. The individuals in these are poorly preserved, with often no more than a few long bones surviving. These graves all have a N-S orientation, aside from a juvenile and a 19-20 year old male buried on a S-N orientation. The inhumation of the male is intriguing: not only is he laid out on a different orientation to the rest of the burials, he is also buried face down, and the position of the shoulder blades suggests that his arms may well have been bound behind his back. Is this an example of a burial of a deviant? The remaining five graves are located parallel to wall [4005]: the individuals were laid out supine on a N-S orientation in the supine position with their arms clasped. Interestingly, no children or infants have been found in this phase: the individuals are all juveniles (65%) or adults (35%). Of these, three individuals are female, eight male and six are of indeterminate sex. No associated grave goods were found, and it seems likely that these simple burials date to well after the abandonment of the monastery.

Coin finds support a chronology of the continued use of the site in the later middle ages, after the suppression of the monastery. The fill of a late grave produced a *denaro provisino* of the Senate of Rome, dated to the 13<sup>th</sup> or 14<sup>th</sup> century<sup>33</sup>. Since the coin is in a residual context, presumably not a grave good, it confirms that the area in front of the church continued to be filled with earthen graves at the end of the monastery's life and beyond. One of the beaten earth floors in front of the church, predating the construction of the *castrum* walls, dates from this same period<sup>34</sup>. A 15<sup>th</sup>-century *picciolo* was recovered from contexts associated with the destruction of the cloister's ashlar walls, presumably after it had been used as a warehouse<sup>35</sup>.

#### *Summary Interpretation:*

The excavation campaign of 2008 has helped to corroborate the hypotheses of previous years about the development and chronology of the site. The church, its paved area, and eventually the narthex radically transformed the area from whatever it may have been before - about the Roman buildings in this area we have very little information at present - into a congregational church, substantial enough to support a large community of faithful and contemporary in its architectural forms. The basilica appears to have had a funerary function early on, and the tombs were concentrated outside the west façade of the church. The next major reorganisation is probably related to the foundation of the monastery. The large coursed-rubble buttressed walls to the north of the church suggest a date of the 10<sup>th</sup> century. They carve out an area to the north of the church, dividing it from the area in front of the church, which increasingly was used for lay burials. Neither the archaeology nor the documents preserved from Villamagna provide further information about the organisation of the monastic areas. The area in front of the church continued to attract burials after the creation of the monastery. These tombs were either built in masonry or simple earthen tombs, and the changes in tomb type and slight shifts in orientation of tombs might indicate patterns of change over time.

Towards the end of the eleventh century the monastery was fitted with the standard features of the time: a cloister was constructed inside the northern courtyard, with a cistern at its center. A bell tower was built to the west, probably at the same time that a monumental porch was added and the apse rebuilt. A bell casting pit is probably to be associated with this activity, which concluded with the repaving of the church with a cosmatesque pavement, perhaps around 1140. Burials continued in front of the church, particularly on the southern side of the churchyard.

After the suppression of the monastery in 1299, the area identified as the cloister was abandoned and filled with debris, some of which indicates that it was used to store building materials. The concentration of ancient marble fragments suggests that they were stockpiled there, perhaps in anticipation of being sold. The walls of these structures were later robbed out and the entire building was abandoned. A large lime-burning kiln was placed to the west of the former monastic buildings, presumably to fire quicklime for the fortifications that surrounded the crest of the hill. During this period the northern aisle of the church was subdivided into a funerary chapel, in which a number of individuals were buried around the central grave of a woman. It is possible to relate this later activity of burial, fortification and stockpiling building materials in a period during which Villamagna was the centre of a seigneurial estate, perhaps of a family administering the estate on behalf of the cathedral canons of Anagni. In addition to the management of the estate's landholdings, the resources of the ancient villa were exploited for profit, in quicklime and marble revetment.

The majority of materials from contexts excavated in this area are residual. A great number of marble fragments have been recovered, but all are in secondary or later contexts, either reused in the church, tombs or other buildings, collected in the stockpiled materials in the cloister, or mixed with the soil. In the abandoned

<sup>33</sup> CO 12, from (2215). The medieval coins have been examined provisionally by Alessia Rovelli and await further study.

<sup>34</sup> CO 22, from (2242).

<sup>35</sup> CO 38, from (4048).



cloister, three fragments of statuary were recovered, one fragment of the head of a Roman statue, a small Silenus (?) recut as a weight<sup>36</sup>, and two foliate ornaments of late medieval date. Numerous coins (most illegible) and pieces of metal from farm implements also came from the deposits in Space III, as well as worked bone, including a miniature pair of dice. The pottery recovered was generally produced locally, including glazed pans, cooking pots, *bande rosse* pitchers, and *maiolica arcaica*. Tarik Moujoud began conservation of the small finds, starting with the jewelry deriving from the cemetery.

Caroline Goodson with Corisande Fenwick

### *The Chapel and its burials (CII)*

Trench CII was excavated in the 2006 and 2007 seasons and an osteological analysis was conducted by Francesca Candilio in 2008 on the skeletal material. Situated in the north aisle of the church; the area of the trench is limited by the exterior north and west walls of the church, and to the east and west by internal dividing walls for the later addition of a chapel. Six discrete phases have been identified; 1) early church with colonnaded northern aisle; 2) the construction of walled tombs; 3) restoration of the church. The area was used for a bell-casting pit, and then presumably paved over with the cosmatesque paving found in fragments in later fills; 4) the construction and use of the funerary chapel; 5) the abandonment and collapse of the church; 6) the 19<sup>th</sup>- or 20<sup>th</sup>-century restoration of the church. This report integrates the osteological, stratigraphic and spatial data.

Ph1: Aside from the exterior N and W walls, built in *opus vitatum*, the only indication of the early church's architecture is an in-situ column base, about .60 m below the current floor level of the church, and within .10 m of the height of the paving stones identified outside the church. Fragments of marble pavement that may be part of the floor associated with the column have been found, and a cement and mortar preparation for this surface is visible in various cuts. It seems likely that the interior of the church was constructed as an aisled basilica.

Ph2: In the next phase, a series of E-W walled tombs were constructed from despoiled marble slabs and Roman terracotta bricks. Only two (A and B) partially survive abutting the northern wall of the church. Any others were destroyed by the bell-casting pit. Nonetheless the amount of broken marble slabs and bricks found in later fills,<sup>37</sup> supports the idea that there was originally a much more extensive series of burials inside the church proper. The similarity in construction, materials and size to the walled tombs excavated outside in the churchyard, suggest that tombs A and B are associated with what seems to have been a period of mass re-modelling of the church inside and outside.

Only three articulated skeletons were found in this phase, all in tomb A. The earliest in-situ burial in tomb A is a partially preserved skeleton of a 20–30 year old female<sup>38</sup>. The tomb was later re-opened for the burial of an adult of indeterminate sex<sup>39</sup> 30-40 years old, and then that of an 20–40 year old adult male<sup>40</sup>. These skeletons are all laid out on a W-E orientation, in a supine position with arms crossed and legs extended. The skeleton of the male aged 20-40 years shows signs of severe rheumatoid arthritis and spondyloarthropathies, as well as various traumas, including fractures on a rib and finger-bone<sup>41</sup>. Similar pathologies were found on bones from the fill of the 20-30 year old female. Osteological analysis revealed that these later bones came from the complete, though dis-articulated, skeleton of an adult male. Presumably this individual, was the earliest occupant of tomb A, and disturbed by the insertion of later burials in the chapel.

Ph3: The tombs were partially destroyed to create a *praefurnium* for the casting of a monumental bronze bell. A small ossuary pit uncovered in the NW corner of the church, was perhaps dug to rebury some of the bones disturbed by the breaking up of the walled tombs, at any rate, before the bell-casting pit was created. After the bell had been cast, the *praefurnium* was filled with earth and packed with a leveling surface. This *may* have been the preparation for a cosmatesque pavement, like that found on the northeastern side of the church. However later activity has removed the pavement, its only traces are fragments in later fills<sup>42</sup>.

Ph4: In the subsequent phase, CII was converted into a funerary chapel. A southern E-W wall and an eastern N-S wall were built, and a mortar pavement laid down, creating a roughly square room with an entrance in the SE corner. Later, fifteen intercutting rectangular earthen graves, clustered together in the western half of the chapel, were

<sup>36</sup> Pers. Comm. Fabio Sigismondi.

<sup>37</sup> 3153 and 3161.

<sup>38</sup> 3102.

<sup>39</sup> 3097.

<sup>40</sup> 3069.

<sup>41</sup> Different vertebrae are fused both between their spinous processes and through osteophytic formations along the margins of the vertebral bodies. The manubrium is fused to the first left rib. The left scapula, clavicle and rib all show bipartition. Moreover, one of the ribs shows a healed fracture. Even though, overall, the appendicular skeleton has been less altered by such degenerative processes, the inferior limbs show, nonetheless, evident remodelling along the joints, periostitis along the diaphyses and there is, on the left femur, severe exostosis in the insertion area of the Gluteus maximus muscle.

<sup>42</sup> Eg (3105).



Fig. 21. Rings from the central tomb in the chapel (3046), before and after conservation

dug. Interestingly, the earliest and only undisturbed burial is that of an adult female of 30-50 years interred in a large grave in the very centre of the chapel, around which the other burials seem to have been arranged.<sup>43</sup> A ring with glass mount was placed on the fourth finger of her right hand (fig. 21); a second ring and a piece of worked bone was found in the grave fill. Perhaps this woman was the important individual for whom the chapel was created. Abutting the south wall of the chapel, lies the grave of a 20-30 year old female<sup>44</sup>, buried, like the oldest and primary burial, with a ring with a bezel on her right hand. The disarticulated bones of a foetus were found above her pelvis, suggesting that she may have died during pregnancy or childbirth. Her grave lies above a series of poorly preserved infant burials: the earliest are those of a child of 3-5 years<sup>45</sup>, and an infant of 1-3 years<sup>46</sup>; later graves for a 3-6 year old child<sup>47</sup> and then, an infant of 0-1 years were dug.<sup>48</sup> Unlike the contemporary burials, one<sup>49</sup> was laid out on a S-N orientation parallel to the pavement lining the eastern chapel wall. All graves in the chapel appear to avoid this area which may suggest the presence of an altar there, built either of wood or removed in subsequent renovations.

A series of later infant graves were dug around these main adult graves<sup>50</sup>. To the north of the primary grave of the female are the graves of two infants between 1 and 3 years old: the earliest<sup>51</sup>, is cut by another<sup>52</sup> who lies directly on top. Immediately to the west of the primary burial is the grave of another infant, 2-4 years old<sup>53</sup>. Above this grave and to the east lies several intercutting infant burials, only some of which were intact. The earliest of these appears to be that of an infant of 1-2 years<sup>54</sup> cut by that of an 2-4 year old child<sup>55</sup>, which lies below the graves of a 2-

<sup>43</sup> **3048**. Objects no. 6 (a bezel-set glass ring, associated with **3061**) and 7 (illustrated here), resemble a silver ring with a sapphire set in a bezel, North Italian, 14<sup>th</sup> century, Oxford, Ashmolean Museum, Dept. of Western Art Gallery Reference No. (2). See SCARISBRICK and HENIG 2003; pl. 6, no. 4. See also the setting for the 'toadstone' in the Franks Collection, British Museum London, AF 1023, dated to the 14<sup>th</sup> century, reproduced in WARD *et al.* 1981: fig. 149.

<sup>44</sup> **3061**.

<sup>45</sup> **3079**.

<sup>46</sup> **3114**.

<sup>47</sup> **3074**.

<sup>48</sup> **3074**.

<sup>49</sup> **3114**.

<sup>50</sup> **3061** and **3048**.

<sup>51</sup> **3060**.

<sup>52</sup> **3059**.

<sup>53</sup> **3053**.

<sup>54</sup> **3094**.

<sup>55</sup> **3091**.

4 year old child<sup>56</sup> and an infant of 0-2 years<sup>57</sup>. Some time after the main group of burials, a grave was dug in the SW corner for an adult female 20-40 years old<sup>58</sup>, buried with a bone necklace, and re-opened to inter an adult male of 20-30 years<sup>59</sup>.

Both genders are present (female 3; male 1), but these burials are striking for the high number of neonate, infant burials under the age of 6, some 73% of the individuals in this phase. The individuals were uniformly laid out in a supine position with arms flexed and legs extended. The majority were buried oriented W-E, apart from an infant in the southeast corner<sup>60</sup>, and the much later burials in the south western corner, oriented S-N<sup>61</sup>. The lack of evidence for nails and the oval shape of grave cuts, when visible, indicates that wooden coffins were not normally used. It seems likely that the normal procedure was for bodies to be wrapped in a shroud. The fill of one of the later graves<sup>62</sup> included a small piece of a glazed pan, suggesting that at least the later burials date from the 14<sup>th</sup> or 15<sup>th</sup> century, and we might surmise that this whole phase dates to the period after the suppression of the monastery in the late 13<sup>th</sup> century. All over Italy, the fifteenth and sixteenth centuries witnessed increasing burials inside churches, as opposed to outside, and this chapel may attest to this phenomenon in the 14<sup>th</sup> century at Villamagna, a result of the change of proprietors<sup>63</sup>. The very latest burials<sup>64</sup> in this chapel could date from significantly later than the original period, since they are stratigraphically later and have a different orientation from the rest of the chapel group.

Ph5: Subsequently, the chapel was abandoned and the church roof collapsed, events attested to by a layer of burnt debris and roof tiles.

Ph6: In the 19<sup>th</sup> or 20<sup>th</sup> century, the chapel area was paved over with a thick layer of cement in the reconstruction of the church. Small trenches were dug along the walls, perhaps to test the foundations, thereby disturbing some of the earlier graves. The presence of numerous disarticulated fragments of cosmatesque pavement in this floor suggests that these were brought up by the construction works.

Although only 18 articulated partial or complete skeletons were recovered during excavations, osteological analysis revealed a minimum of 25 individuals were buried here (11 adults and 14 sub-adults). The paucity of articulated, adult skeletons in secure contexts from CII makes it difficult to draw firm conclusions about the health, lifestyle and diet of the individuals in these two periods. Two of the adults in the first phase were certainly in poor condition, and the large number of infants in the second phase suggest a high level of infant mortality. The location of these burials inside the church, whether in the walled tombs of the early church or the much later funerary chapel, would similarly suggest that these individuals were of a higher social status than those buried outside in the cemetery. This interpretation is supported by the presence of a far greater number of costume elements (buckles, bells), and bone and bronze jewelry (rings, neck chains, brooches) in CII than in the burials outside the church.

Francesca Candilio, Corisande Fenwick, Megan McNamee

## BIBLIOGRAPHY

- ACSADI J.Y. and NEMESKÉRI J., 1970, *History of human life span and mortality*, Budapest.
- ADAM J.-P., 1994, *Roman Building. Materials and Techniques*, tr. A. Mathews, London.
- ARTHUR P., CALCAGNILE L., ANDERSON T. *et al.*, 2007, 'Sepolture multiple e datazioni al radio carbonio ad alta risoluzione di resti osteologici provenienti dal villaggio di Quattro Macine, GIUGGIANELLO (LE),' in *Archeologia Medievale* 34: 297-301.
- BECATTI G., 1961, *Scavi di Ostia IV, Mosaici e Pavimenti Marmorei*, Rome.
- BRUZELIUS C. and GOODSON C., 2005, 'The Abbey in the Middle Ages', in E. FENTRESS, C. GOODSON, P. LAIRD and S. LEONE (eds.), *Walls and Memory: The Abbey of San Sebastiano, Alatri (Lazio) from Late Roman Monastery to Renaissance Villa and Beyond*, Turnhout: 143-152.
- CARRARA M., 2001, 'Opus sectile,' in G. MESSINEO, *Ad Gallinas Albas, villa di Livia*, in *Bullettino della Commissione archeologica comunale di Roma, Suppl.* 8: 144-148.
- CORSETTO A., 1998, 'Sepolture e usi funerari medievali,' in *Archeologia in Piemonte Vol. III. Il Medioevo*: 209-232.
- DELAINE J., 1997, *The Baths of Caracalla: a study in design, construction and economics of large-scale building projects in imperial Rome*, Journal of Roman Archaeology supplement 25, Portsmouth, RI.

<sup>56</sup> 3088.

<sup>57</sup> 3085.

<sup>58</sup> 3042.

<sup>59</sup> 3022.

<sup>60</sup> 3114.

<sup>61</sup> 3022, 3042.

<sup>62</sup> (3062)/ 3061.

<sup>63</sup> See CORSETTO 1998: 221.

<sup>64</sup> 3022, 3042.



- DELAINE J., 2000, 'Bricks and mortar. Exploring the economics of building techniques at Rome at Ostia,' in D. MATTINGLY, J. SALMON (eds.), *Economies beyond agriculture in the classical world*, London: 230-268.
- FENTRESS E., GATTI S., GOODSON C., HAY S., KUTTNER A., MAIURO M., 2006, 'Excavations at Villa Magna 2006', in *FOLD&R* 2006, 68.
- FENTRESS E., FENWICK C., GOODSON C., KUTTNER A., MAIURO M., 2007, 'Excavations at Villa Magna 2007', in *FOLD&R* 2007, 96.
- FIORANI D., 1996, *Tecniche costruttive murarie medievali. Il Lazio meridionale*, Rome.
- FLASCASSOVITTI C., 1994: *Le pergamene del monastero di S. Pietro di Villamagna (976–1237)*, Lecce.
- FRANCE D.L., HORN A.D., 1989, *Lab manual and workbook for physical anthropology*, St. Paul 1988.
- GELICHI S., 2001, 'Le sepolture: tipologia e organizzazione degli spazi, in S. GELICHI and I. NOBILE (eds.), *Il battistero di San Giovanni di Incino*, Erba: 50-93.
- GELICHI S. and ALBERTI A., 2003, 'San Michele alla Verruca: La sequenza, lo scavo della chiesa e delle aree cimiteriali,' in R. FRANCOVICH and S. GELICHI (eds.), *Monasteri e castelli fra X e XII secolo*, Florence: 30-31.
- GUIDOBALDI F., 1985, 'Pavimenti in opus sectile di Roma e dell'area romana: proposte per una classificazione e criteri di datazione,' in P. PENSABENE (ed.), *Studi Miscellanei 26 – Marmi Antichi. Problemi d'impiego, di restauro e d'identificazione*, Rome: 173-233.
- GUIDOBALDI F., 2004, 'Sectilia pavimenta di Villa Adriana,' in *Mosaici Antichi in Italia, Studi Monografici 2*, Rome.
- ISCAN M., KENNEDY K., 1989, *Reconstruction of life from the skeleton*, New York.
- LOVEJOY C., MEINDL R., PRYZBECK T.R. MENSFORTH P. 1985, 'Chronological metamorphosis of the Auricular surface of the ilium: a new method for the determination of adult skeletal age at death,' in *American Journal of Physical Anthropology* 68.1: 15-28.
- MARAZZI F. FILIPPONE C., PERONE P. et al., 2002, 'San Vincenzo al Volturno – Scavi 2000–2002. Rapporto preliminare,' in *Archeologia medievale* 29: 230-243.
- MARAZZI F., 2006, *San Vincenzo al Volturno. Guida agli scavi*, Isernia / Naples: 133–134.
- MARI Z. and FIORE CAVALIERE M.G., 2001, 'Rivestimenti marmorei da una villa tiburtina e da quelle imperiali da Arcinazzo e Subiaco: Esempi tipologici ed episodi di spoliazione,' in A. PARIBENI (ed.), *Atti del VII Colloquio dell'Associazione per lo Studio e la conservazione del mosaico*, Rome: 427-448.
- NEMESKÉRI J., HARSÁNYI L, ACSÁDI G., 1960, 'Methoden zur Diagnose des Lebensalters von Skelettfunden, in *Anthropologischer Anzeiger* 24: 70-95.
- PENSABENE, P, 2002, 'Lo "spiccato" in marmo della Villa di Domiziano a Sabaudia,' in M. DE NUCCIO and L. UNGARO (eds.), *I marmi colorati della Roma imperiale*, Venice: 157-161.
- RIGHI, R., 1980, 'La Villa di Domiziano in località "Palazzo" sul lago di Sabaudia: pavimenti in opus sectile dell'edificio balneare ad esedre,' in *Quaderni del Centro di studio per l'archeologia etrusco-italica 3 (Archeologia Laziale II)*: 97-110.
- SCARISBRICK D., and HENIG M., 2003, *Finger rings from ancient to Modern*, Ashmolean handbooks, Oxford.
- SCHEUER L., BLACK S., 2000, *Developmental juvenile osteology*, London.
- SCHEUER L., BLACK S., 2004, *The juvenile skeleton*, London.
- STLOUKAL M., HANAKOVA H., 1978, 'Die Länge der Längsknochen altslawischer Bevölkerungen unter besonderer Berücksichtigung von WACHSTUMSFRAGEN,' in *Homo* 29: 53-69.
- TODD T., 1920, 'Age changes in the pubic bone: I, The male white pubis,' in *American Journal of Physical Anthropology* 3.3: 285-334.
- TODD T., 1921, 'Age changes in the pubic bone,' in *American Journal of Physical Anthropology* 4.1: 1-70.
- UBELAKER D. H., 1989, *Human skeletal remains: Excavation, analysis, interpretation 2<sup>nd</sup> ed.*, Washington D.C.
- VAN DEMAN E., 1909, *The Atrium Vestae*, Washington D.C.
- WARD A. et al. (eds.), 1981, *The Ring, from Antiquity to the Twentieth century*, London.
- YOUNG B., 1977, 'Paganisme, christianisation et rites funéraires merovingiens', in *Archéologie médiévale* 7: 1-81.

Elizabeth Fentress  
elizabeth.fentress@gmail.com