The 2011 Field Season at the Villa San Marco, Stabiae: Preliminary Report on the Excavations

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In the summer of 2011, Columbia University, in collaboration with H2CU (Centro Interuniversitario per la Formazione Internazionale) started an archaeological project in ancient Stabiae: The “Advanced Program of Ancient History and Art” (APAHA), a program that is projected to run for five years. During this time, the project will perform stratigraphic excavations in one of the largest and most opulent villas in Campania, the Villa San Marco. This villa, along with Pompeii, Herculaneum, and the rest of Stabiae, was buried by Mount Vesuvius in 79 A.D. In the 18th century, when archaeological interest in the lost Campanian cities began, it was among the earliest structures to be uncovered. Excavated by the Bourbons to extract artefacts and wall paintings, it was then immediately reburied. A program to bring the villa back to light started in the 1950s and continues to the present day, but only with the aim to uncover what the Bourbons had already seen. APAHA is the first program ever to perform stratigraphic excavations in the Stabiae villas, investigating the pre-79 A.D. history of the site.

The project’s goal is to understand the architectural history of the villa, as well as any existing older habitational layers, giving a full archaeological account of the stratigraphy from the eruption of Mt Vesuvius down to virgin soil. The project will also excavate in the street that delineates the northern section of the Villa San Marco with the aim of understanding the interaction between private and public space. Since the street is an extension of the Stabiae city-grid plan, part of the goal of these excavations is also to investigate the connection between the villa and the settlement of Stabiae.

In the summer of 2011, the Advanced Program of Ancient History and Art (APAHA) conducted a pilot season of excavations at the Villa San Marco in ancient Stabiae*. During the course of three weeks, a small eight-student team, under supervision of field director Dr. T. Terpstra, performed stratigraphic excavations in the northern section of the villa (fig. 1). The goal of the excavations was twofold: clarifying the construction history of this part of the building, and investigating the interaction between public space (street) and private space (villa).

Fig. 1. The Villa San Marco with the room (indicated with a red square) that was the focus of the 2011 APAHA season (Drawing reproduced with permission from the Soprintendenza).

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The room: physical description and excavation history

The shape of the investigated room is essentially a rectangle, with the northwestern corner sectioned off at a 45° angle by a long wall separating the room from the street (fig. 2). This division wall gives access to the street through a broad doorway (2.78 m.). South of the northern wall, in the middle of the room, there is a colonnaded open space consisting of round brick pillars on the western side (fig. 3), and square opus vittatum of tufa blocks on the southern, and eastern sides. This colonnaded space was for certain unroofed in antiquity; previous excavations that cleared the room of lapilli found a cavity created by the roots of a large tree in its center. As a later architectonical addition, shallow parapet-walls in opus reticulatum and opus vittatum were built between the columns. Only one opening in the short, northern side now allows access to this space, an opening that is on alignment with the broad entrance in the northern wall separating the villa from the street. To the east of the central open space there is a line of smaller rooms, still incompletely excavated and filled almost entirely with lapilli. To the west, there are three triangularly-shaped rooms, the largest two both latrines. The smallest, south of these, has its walls and floor lined with hydraulic plaster. It seems to have served as a cistern, although it has one window, almost certainly a later architectural addition, much reducing its liquid storing capacity.

Both of the long sides of the central open space show a colonnaded continuation towards the north. The western side has one round brick column abutting the northern wall while the eastern side has two round columns in tufa, followed by one round column in brick and one half column in brick attached to a short section of wall. These

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1 RUFFO 2009: 238, fig. 2.
two brick columns are incorporated into a small structure, abutting the northern wall, likely a guard house associated with the broad doorway.

This part of the villa, uncovered and filled in again in the eighteenth century, was re-excavated only in 2008\(^2\). Modern activity is therefore relatively easy to identify and date; post-2008 reconstruction is visible in the roofing over the guard house, the roofing over the latrines, and a wooden architrave over the freestanding columns of the eastern colonnade and the southern and eastern pillars of the central open space. A conspicuous modern feature is the series of wooden support struts constructed between the eastern colonnade and the wall giving access to the line of rooms further to the east. Because these rooms remain filled with lapilli there is much pressure on the outer wall. Safety concerns rendered this part of the room off-limits to the 2011 APAHA team.

Eighteenth century excavation activity in this area is visible in the southwestern corner (where the 2008 campaign uncovered a pit exposing a water drainage system) as well as in the *cunniculus* in the wall separating the southern latrine from the so-called *palaestra* (fig. 4, fig. 14). As will be discussed in greater detail below, the 2011 APAHA team discovered more of this Bourbon excavation activity to the north\(^3\).

Several architectural aspects make this an attractive room for archaeological research. Most importantly, in this room two different alignments meet: the alignment of most of the villa, and that of the street (which the villa's bathing complex, however, also follows). Because the room's northern wall separates the villa from the street, investigating the conflicting alignments in this location has the potential to provide information on the boundary between public and private space. Finally, as indicated above, the standing architecture shows different building techniques, suggesting different building phases and providing information on the villa's construction history.

**The trenches**

The team excavated two trenches, the first – trench 1000 – from the northeastern corner of the colonnaded open space to just north of the two columns in tufa; the second – trench 2000 – along the northern wall, incorporating the round, brick column abutting the wall in the west, and part of the threshold of the entrance to the east (fig. 2). The research goal for trench 1000 was to investigate the relationship between the colonnaded open space and the extended colonnade towards the north. For trench 2000, the goal was to investigate the relationship between the single column abutting the northern wall and the northern wall itself, as well as to investigate the entranceway into the room from the north. Below follows a preliminary account in phases of the most important discoveries.

**Phase 1: late 6th century BC terracing event**

In the archaeology discovered by the APAHA team, no division of space between trench 1000 and 2000 was ever visible; both areas seem to show the same stratigraphy. The earliest activity found by the team in this area is represented by a thick layer of dense, dark soil, containing relatively little cultural material (fig. 5). The ceramics that were recovered suggest an early date – the end of the 6th century BC – a somewhat surprising finding given that the top of the layer was found only about 70 cm. below the 79 AD level\(^4\). Although the bottom of this layer was never reached, it seems to be the result of a fill- or terracing-event. Clearly a large amount of soil was deposited here over an extensive area, so leveling or terracing of an uneven or sloping surface seems the most likely explanation. It should be noted that the street to the north of the villa shows a steep incline, running down east to west (where the ancient coastline must have been). It is possible that the natural soil in this area follows the same incline, and that some of the earliest activity was therefore intended to create a more or less level surface.

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\(^2\) During the 1950’s excavations performed by d’Orsi, this room was left unexcavated; d’Orsi 1996.

\(^3\) On the Bourbon excavations of the villa, see ALLROGEN-BEDEL 1999.

\(^4\) For more details on the ceramics, see the section written by L. Toniolo in: Terpstra, Toniolo, Gardelli (forthcoming). Surveys in the garden area on the southern end of the building also found ceramic fragments dating to the seventh and sixth centuries BC: ROUGETET 1999: 56.
Phase 2: incorporation into the villa-complex

One of the major research goals for trench 2000 was to find a foundation trench for the northern wall. Unfortunately, this goal was not achieved. After only five days of excavating the western section of the trench was filled in for fear that the column abutting the northern wall would collapse. Attention then shifted to the eastern section where, because of cuts both ancient and modern (discussed below) and because of the doorway (a later addition to the room), there had been much post-construction disturbance in the area lining the wall. The result was that this section did not produce enough information to establish a construction date. No remains of an older partition to the south were found by the team, so perhaps the northern limit of the Villa San Marco was always where we see it now. If the wall was already in existence by the time the first floor-surface was poured (phase 3a) this would suggest a pre-50 BC date for its construction. Establishing this with certainty would require further excavations, though. It is also possible that remains of an older division wall exist further north, underneath the road-surface. To investigate this hypothesis, in which the room was originally larger and was cut by the street, future APAHA seasons might include excavations on the street-side of the northern wall.

An important discovery of the 2011 season was a wall built in lava-stone and cement running north-south, showing two courses, giving it the appearance of a staircase (fig. 2, fig. 6). The fact that this ‘stepped wall’ is on alignment with the main part of the villa seems to suggest that the surrounding space was already part of the villa complex at the time of its construction. Alternatively, the wall may follow the alignment of pre-villa buildings, as yet undiscovered, although its construction technique in lava-stone and cement shows that the feature itself does not predate the second century BC. All that can be said now with any degree of certainty is that the construction of the ‘stepped wall’ predates the 3a floor surface (see below), which implies an ante quem date of approximately 50 BC. If indeed the ‘stepped wall’ is associated with an older phase of the Villa San Marco, a date in the first half of the first century BC seems plausible. However, future campaigns will be needed to gather additional chronological data. Although the wooden support struts made excavations further to the east impossible, a small extension of the trench found the eastern edge of the higher course, showing that both the lower and the higher step are about 54 cm in width (fig. 7). This wall, representing the oldest architecture uncovered so far in this room, was built on top of the late-6th century BC layer (phase 1). There was no cement or cocciopesto floor-surface associated with it, so we should probably imagine a simple beaten earth surface (too degraded to be detected now) at the bottom of the lowest course.

The most plausible explanation for this feature is that of a retaining-wall or shallow staircase, associated with a raising of the previous surface in the eastern part of the excavation, done in one single event. The ‘stepped wall’ seems to have created a spatial division: east of the ‘stepped-wall’ there does not seem to be a cement floor-surface, level with the top of the wall (fig. 7), despite the fact that cement floors did appear in later phases on the western side (phase 3a and 3b). An indication of the nature of the spatial division may also be found in the northern wall itself, which has a blocked door, east of the small guard house (fig. 8), showing that access from the north was

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5 The oldest elements of the villa seem to date to late-Republican times. The atrium to which the investigated room is connected perhaps belongs to the oldest part of the villa. See ROUGETET 1999: 53, 56.
changed at some point in time. This blocked door, perhaps the original entryway into the room from the street, is much smaller than the broad entrance visible further west: 96 cm wide, 175 cm high. The doorway's height seems to suggest that the associated floor-level has not been raised much since it was blocked. This could mean that the 'stepped wall' was built as a retaining wall to a higher terrace in the east that had, and always kept, a surface in beaten earth. In this hypothesis, the smaller doorway that is now blocked originally gave access to this terrace. However, to investigate this hypothesis further, excavations east of the 'stepped wall' wall will be necessary.

Phase 3a and 3b: raising of floor-level

In the next phase the floor-surface was raised twice, in both cases by a fill-layer and a cement floor, each raising event completely covering one course of the 'stepped wall'. The first cement floor (phase 3a, fig. 9, left), in addition to covering the first course, covered a square masonry block (constructed on top of this course, clearly as a later addition), the purpose of which remains unclear (fig. 9, right). Ceramics data indicate that this floor-surface was poured sometime during the second half of the first century BC.

The second raising event (3b) brought the floor-surface level with the top of the 'stepped wall' (fig. 10). As indicated above, a comparable cement surface did not appear at the same level on the eastern side, reinforcing the

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6 RUFFO 2009: 253-255 with fig. 22.
idea that the ‘stepped wall’ remained a space-divider until it was completely buried, with a higher ground level already existing to the east at an earlier stage. The ceramics from the fill-layer of the 3b cement floor-surface indicate that this event happened relatively quickly after phase 3a, roughly in the late 1st c. BC/Augustan era.

An important discovery in trench 2000 was a straight cut in the 3a floor-surface, following the northern wall, turning north underneath the threshold (fig. 11). The fill-layer in this cut was undoubtedly modern (it contained pockets of lapilli), although the cut itself is almost certainly ancient. The most likely explanation for this combined ancient and modern activity is that the Bourbon excavators extracted lead water pipes originally present here. Extraction of lead was already suspected by the 2008 excavation team to have been the reason for the 18th century disturbance in the room’s southwestern corner, exposing the subterranean drainage system of the villa’s baths and atrium7. We now have a further indication that indeed a system of lead pipes once ran through the investigated room.

The ancient cut made to lay the pipes belongs to the next phase (3b), which saw many important architectural changes to the room. In this phase, the 3a floor was cut, the broad doorway was created, the fistulae were put in, and a new cement floor was poured, covering the fistulae-cut and coming up to the threshold of the newly created doorway. With the creation of this 3b floor-surface the floor was brought level with the higher terrace east of the ‘stepped wall’, an event that likely coincided with the blocking of the narrow doorway (fig. 8). Floor 3b dates to the late 1st c. BC/Augustan era, and – Bourbon damage notwithstanding – the archaeology shows it abuts the opus vittatum doorpost of the broad entrance (fig. 12). This relationship shows that the entrance was constructed earlier than, or at the same time as, the floor, giving an approximate date for the doorway. It is, in this respect, important to note that the entranceway into the villa across the street seems to be slightly younger than the Villa San Marco’s; brick stamps indicate that the doorway into the neighboring villa belongs to a general restructuring event that occurred in Augustan/Tiberian times8. Because the two entranceways share construction-technique, alignment, width, and decoration (in the bicolored stucco work on the walls and in the two engaged columns on each side of both entrances on the street-side) they were hypothesized to be contemporaneous9. It now seems more probable that the doorway of the Villa San Marco was constructed somewhat earlier, with its mirror image across the street, for whatever reason, imitating its appearance.

As to the age of the Villa San Marco’s fistula-system, the data from trench 2000 allow us a comparison with the building across the road in this regard as well. The lead pipes in the villa were installed in the late first century BC/Augustan era (the date of floor surface 3b). As with the doorway, the fistula-system seems slightly to predate events across the street. The small bathing complex on that side has yielded a valuable epigraphic dating element: a fistula stamp on a pipe leading from the furnace room into the caldarium that seems to suggest a Claudian manufacturing date10.

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7 RUFFO 2009: 247.
8 RUFFO 2010: 190.
9 RUFFO already expressed some reservations regarding the contemporaneity of the two doorways: RUFFO 2010: 189 (with nt. 18). See also RUFFO 2009: 243.
10 RUFFO 2010: 190-191; See also ESPOSITO 2011: 152-160 who hypothesizes that the Villa San Marco and the villa across the street were imperial property.
At this point in the discussion, it should be emphasized that so far none of the Villa San Marco's water pipes have actually been discovered; their previous existence can only be hypothesized\(^1\). This circumstance is almost certainly the result of thorough 18\(^{th}\) century extraction. The lead pipe in the small baths across the street seems to have survived to the present day only because the Bourbon excavators did not fully uncover the rooms in that area\(^2\). However, in the Villa San Marco, explored more extensively, extraction appears to have been complete. Whether or not a section of pipe will ever be recovered in the villa, extraction activity almost certainly explains the narrow cut in the 3b floor-surface, similar in alignment to the cut lower down in the 3a floor-surface, but much more irregular in shape (fig. 12, fig. 13). As noted at the beginning of this report, extraction holes are visible in the floor and back wall of the southern latrine and in the cistern wall, south of the latrine entrance (fig. 4). The robber trench running through the latrine wall can, in fact, be traced into the ‘palaestra’, where it runs along the eastern, northern, and western walls, then underneath the threshold towards the bathing complex (fig. 14)\(^3\). Although it is a great shame that the pipes are now gone, the 2011 APAHA excavations have added substantially to our knowledge of the water-supply system of the Villa San Marco.

Phase 4a, 4b, 4c: construction of colonnaded open space and colonnade

Only after the second floor-raising event had brought the surface of the room level throughout was the colonnaded open space in the center of the room constructed. In the first phase (4a) this feature consisted entirely of rounded brick columns of the type still visible on the western side (fig. 3). In a subsequent phase (4b) the colonnade was extended towards the north with five additional columns (one in the west, four in the east), at least the two

\(^1\) See ROUGETET 1999: 49.
\(^3\) The holes in the floor of this area were also noted by d’Orsi; he, too, hypothesized that they were created by robber of fistulae. In his journal-entry for July 2\(^{nd}\), 1954 he comments: ‘Non essendovi tracce di manufatti ed essendo queste cavità in asse col foro già notato, si ha l’impressione che ci sia stata in origine una fistula per la conduttura dell’acqua’; d’Orsi 1996: 186.
constructed in tufa using the now completely buried ‘stepped wall’ as a foundation. The next phase (4c) saw the destruction of the round columns in brick on the eastern side of the colonnaded open space, and their reconstruction in opus vittatum.

The evidence for these three phases is provided by the standing architecture and by the stratigraphy of both trench 1000 and trench 2000. The shape of the colonnaded central space’s northwestern corner shows it is the last remaining vestige of phase 4a. This corner is rounded on its northern and southern sides but flat on its western and eastern sides, making it unique in the remaining architecture (fig. 15). Its physical aspects suggest it is a pier which supported roof beams from both the north and west, showing the furthest northwestern extent of the original central space. This information is confirmed by the stratigraphy of trench 1000 as well as by a southward extension of trench 2000, which found no evidence of the feature ever having extended further north. Both trenches also showed that the colonnaded open space postdates the phase 3b floor surface, giving it a post-Augustan date.

The subsequent continuation towards the north of the colonnade in rounded columns (phase 4b) suggests that at that time, the columns around the central open space were still constructed in round pillars. The use of rounded columns suggests that architectural visual aspects were still important in this phase, and it is possible that the brick columns were stuccoed or painted to look like the columns in tufa, although no trace of such decoration now remains. The capitals topping the two tufa columns have similar, yet not the same carving; they seem to have been reused in antiquity, and were probably brought here from some other section of the villa (fig. 16). As such, they are not good dating elements for phase 4b. However, the channel running through the northern part of the room (phase 5) seems to respect the extended colonnade. If so, this would imply an ante quem date for phase 4b of roughly 30/40 AD. In trench 2000, phase 4b is represented by a single, round, brick column abutting the northern wall (fig. 13). It is clear that the column rests on a cement foundation, which in its turn rests only on soil. No wall running north-south, like the ‘stepped wall’ in trench 1000, was in evidence in trench 2000. With regard to the relationship between the ‘stepped wall’ and phase 4b, as fig. 7 shows, the bases of the two tufa columns are slightly offset towards the east; from this odd architectural position, dictated by the visual line of pillars, it is clear that the ‘stepped wall’ was never intended to be a foundation for the extended colonnade.

The architecture of the colonnaded open space’s northeastern corner shows the development of phase 4c. This corner is square, and constructed in opus vittatum, but the excavation of trench 1000 showed that in phase 4a it had likely been a rounded, brick pier, just like the northwestern side. This corner slightly protrudes towards the north, just like the northwestern pier, and has a layer of brick between its foundation and the opus vittatum blocks, likely the remains of the demolished brick pier that once preceded it (fig. 7). Also belonging to phase 4c are the shallow

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14 At the same time, questions remain about the relationship between the ‘stepped wall’ and the colonnaded open space. From the corner excavated in trench 1000, it would seem as if the southern end of the ‘stepped wall’ coincided with the northern end of the colonnaded open space (fig. 13). Only excavations further to the east can clarify the relationship between the two features.
parapet walls (using the phase 3b cement floor as a foundation) which were built at the same time the restructuring in *opus vittatum* occurred, or shortly after. As in trench 1000, trench 2000 showed that the parapet walls around the colonnaded open space (belonging to phase 4c) were built on top of the phase 3b floor-surface. What could have prompted the complete reconstruction of the open space’s eastern (and likely southern) side is unknown. A collapse after the earthquake that hit the Bay of Naples in 62 AD is an attractive possibility, but the lack of visible earthquake damage to the standing architecture of the room – and the villa in general – does not immediately point in that direction. However that may be, what is striking about phases 4a, 4b, and 4c is that the aesthetics of the room were apparently considered important in the first two, when all pillars and columns were rounded, but apparently no longer in the third, when the architectural unity was broken by the construction of square pillars.

**Phase 5: floor patches, water channel, and final floor-surface**

The final pre-79 AD activity consisted of some cement floor-repair patches, slightly raising the floor-level in the south (an event datable by the ceramics to 30/40 AD), the construction of a large channel, and the covering of the area with a surface in beaten earth (probably immediately following the channel’s construction). The large channel was built by cutting through all pre-existing floor-surfaces, including the 30/40 AD repair patches (information that narrows down its construction date considerably). It consists of a U-shaped outer channel of lava-stone and poured cement (circa 90 cm. wide, 90 cm. deep) with an inner channel (circa 50 cm. wide, 55 cm. deep) lined at the bottom with hydraulic plaster. It was covered by roof tiles which, in turn, were covered by a layer of stones and smoothed cement (fig. 18, also fig. 10).

Elevation points show the channel slopes east to west in the direction of the latrines with an incline of about 18 cm over a 7.5 m span. Its course seems to show awareness of the columns of the extended colonnade (fig. 2, fig. 19). Its inner channel, sealed completely when discovered by the team, was filled entirely with a brownish layer of lapilli mixed with soil. This fill probably washed down with rain from somewhere higher up in the centuries after the villa had been buried.

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15 See **ROUGETET 1999: 46**.
16 For more details on the ceramics, see the section written by L. Toniolo in: Terpstra, Toniolo, Gardelli (forthcoming).
It is, with the current state of knowledge, impossible to determine what this channel was used for. Its construction technique and size are compatible with an aqueduct; perhaps the channel fed a bathing complex or a large fountain or *nymphaeum* somewhere further west. A sizable bathing-complex in the villa across the street has been hypothesized on the basis of the discovery of a large swimming pool there, although it is worth noting that the course of the channel found by the APAHA team leads away from, rather than towards that area. Alternatively, it may be a drain constructed to remove waste-water coming from the east. Recent investigations in the street discovered a large drainage channel, joined by narrower channels coming from a small bathing-complex just across the road (fig. 20). It is possible that the large drainage channel is the street-side continuation of the channel found by the APAHA team, in which case the latter would almost certainly also be a drain. If so, however, it does not seem to have served the Villa San Marco's private baths; another channel running through the southwestern corner of the investigated area, leading into the latrines and from there down into the street, seems to have served that purpose.

The most that can be said at present is that the channel was probably connected with private activity in the Villa San Marco and unconnected to the investigated room, its presence in this space being determined only by reasons of engineering convenience. The construction of so large a feature must have been very disruptive to the room, and public use seems unlikely for that reason. In addition, nothing in the archaeology and standing architecture of the investigated room suggests it was ever particularly classy; it had an earthen floor in its final phase, had two latrines opening onto it, and seems never to have had decorated floors or walls. The room seems always to have been a servile or working area, and luxurious baths or waterworks seem unlikely here. Future APHA seasons will include further excavations of the channel to investigate its course and clarify its use.

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17 **RUFFO** 2010: 181-183 with fig. 3; **ESPOSITO** 2011: 151-152.
18 **RUFFO** 2009: 247; **RUFFO** 2010: 196 with fig. 12.
Summary and future research goals

Conclusions can only be preliminary at this early stage, and future seasons will have to bear out whether present interpretations are correct. Tentatively, though, it can be said that the archaeological information collected by the 2011 APAHA excavations indicate that within the area of the excavation a late 6th century BC leveling event occurred, probably followed by a long period of inactivity, in turn followed by a rapid succession of construction events, compressed into a 100-150 year timespan. This building activity seems all to be associated with the Villa San Marco; no architecture that can be attributed with certainty to an earlier settlement or dwelling was found during the 2011 season. The investigated area’s architectural sequence likely started with the erection of the northern wall and the ‘stepped wall’, and ended with the construction of the large water channel. The colonnaded open space in the center of the room seems always to have had the shape it still has, at least on its northern side. Its long sides were extended northward with five additional columns in a later phase; later still some of its pillars were rebuilt in opus vittatum instead of brick. However, the orientation and width of this space seem never to have changed. The large water channel, though running through the entire northern section of the room, seems to have no connection to the room as such. Whatever its exact function, it is likely associated with activity taking place in a different section of the villa.

Despite the small workforce and the short duration of the campaign, the first APAHA season has produced a surprising amount of significant new information on the Villa San Marco. The data gathered by the program allow for far greater precision in dating the standing architecture of the investigated room. Moreover, the program has made new discoveries that add substantially to our understanding of the villa and of ancient Stabiae in general: the presence of a late-6th century BC layer underneath the villa, the existence and course of the villa’s fistula system, and the existence of a large water channel were all previously unknown to scholarship. In short, the 2011 season of the Advanced Program of Ancient History and Art has made a promising start; the program is greatly looking forward to future seasons.

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