

The Fifth Season of Excavations at VIII.7.1-15 and the *Porta Stabia* at Pompeii: Preliminary report

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The Pompeii Archaeological Research Project: *Porta Stabia* (PARP:PS) recently completed its fifth campaign of excavations during which seven trenches were excavated across the extent of VIII.7.1-15. This fifth season built upon the success of previous seasons by further developing the full occupational sequence for this *insula* and its surroundings. With 30 trenches excavated so far, we are able to detect related physical and stratigraphic associations across the site to establish a detailed and highly nuanced phase plan for the entire *insula*. A more general picture can be charted from that detailed phase plan. The earliest structures appeared in the 4th century BCE, the evidence for which is extremely ephemeral owing to the almost wholesale destruction of them in the mid 2nd century BCE. There may have been a much earlier abandonment of those 4th century BCE structures during a rather long hiatus of activity before the resumption of human occupation close to 200 years later. The redevelopment of the area can be directly tied to the overall escalation of urban activities at Pompeii in the 2nd century BCE, which was doubtless caused by – or at least related to – the influx of wealth following the sack of Corinth in 146 BCE. Non-elite families developed the site, operating cottage-industries in salted-fish production (especially), metal-working, and tanning among probably other pursuits. The Augustan period brought sweeping changes to the production capacities of this neighbourhood as most of the small-scale workshops were replaced with retail-oriented activities like shops and restaurants. The *insula* remained essentially modest in its socio-economic fabric, although some important economic differences emerged in the living conditions of the middle-class families. The earthquake/s of 62 CE caused extensive damage to almost every property, but considerable effort was made to rebuild and resume mostly the same activities until their final destruction in 79 CE.

The choice of trench locations for the 2009 season was based upon the establishment of our phased history for the site. In this, we were guided especially well by the results of the geophysical survey we conducted in April 2009 in collaboration with the British School at Rome and the Archaeological Prospection Service of Southampton¹. We opened 7 trenches in total (fig. 1). Trench 24000 was opened in the street-side room (Room 9) of VIII.7.4; Trench 25000 was located in the small 'service' room (Room 20) of VIII.7.5-6; Trench 26000 was excavated in the large room (Room 65) that opened off the entrance into VIII.7.12; Trench 27000 was opened in the street-side room (Room 68) of VIII.7.14; Trench 28000 was located in the rear room (Room 78) of properties VIII.7.14-15; Trench 29000 was opened in the street-side room (Room 48) of VIII.7.11; and Trench 30000 was located in the large garden area (Room 30) of VIII.7.5-6.



Fig. 1. Location of trenches in VIII.7.1-15 for the 2009 field season.

¹ The survey was undertaken by Stephen Kay and Gregory Tucker of the British School at Rome and Sophie Hay of the Archaeological Prospection Service of Southampton.

The Project continued to invest much time and resources into collecting and analysing the bio-archaeological record of VIII.7.1-15, as well as continuing our architectural survey of the entire zone. Prof. Mark Robinson (Oxford) initiated a study of the paleosols to develop an understanding of the geological terrain of the area prior to the earliest human occupation. Thanks to the generosity of both the *Soprintendenza Archeologica di Pompei* and the *Laboratorio di Restauro II* of the *Soprintendenza Speciale per i Beni Archeologici di Roma*, we have been able to make excellent progress on the conservation and analysis of about 500 coins recovered by our excavations since 2005 under the direction of Giacomo Pardini (Salerno). Our own programme of conservation of the excavated artefacts at Pompeii has been much advanced by the generous access to the laboratory of the *Soprintendenza Archeologica di Pompei*.

The following report outlines and summarises the activities conducted by our Project in the 2009 season.

Trench 24000²

Trench 24000 was opened inside the eastern half of the street-side room (Room 9) of VIII.7.4 (fig. 2). The aim was to investigate the origin of the property's northern boundary wall (WF 62)³, and to establish stratified relationships with trenches 5000 (Room 5 of this same property)⁴, and 11000 (Room 11 in VIII.7.5-6)⁵. The geophysical survey of the room during our April 2009 season indicated several features and anomalies whose stratified recovery could benefit the overall phasing program for this area of the *insula*.

The excavations extended down as far as the prehistoric volcanic deposits, the lowest being the solid grey lava with black and white crystalline inclusions. It now appears that this solid grey lava was formed by volcanic vents at Pompeii itself, rather than from Vesuvius, sometime between the late Pleistocene and the early Holocene⁶. The depth of this deposit varied from 1.52 metres below the modern surface at the northern end of the trench, to 3.88 metres in the south. This marked drop in levels indicates this area to be close to the edge of the lava edifice upon which the town would later develop; in fact, to the west of here the fortification walls follow precisely the same line⁷. A thick deposit of Mesolithic-period mercato ash, dating to around 7000 BCE, overlaid the lava and reflected the same natural topographic discrepancy between north and south.

Phase 1: Prehistoric Pottery

The earliest developments in this area, as elsewhere in the *insula*, are fragmentary, indistinct, and largely disconnected from much subsequent activity. Two pits were dug into the mercato ash in the southeastern corner of the trench during the prehistoric period. Some prehistoric pottery (impasto ware) was found associated with them, but it was unfortunately undiagnostic.

Phase 2: The 4th Century BCE

A levelling fill was laid down over the mercato ash, seemingly unconnected with the pits mentioned in the phase above. This deposit contained black gloss ceramics dating from the mid 4th to the early 3rd century BCE. It was capped by an unusual surface that appeared similar to the later mortar surfaces found throughout the *insula* (eg.

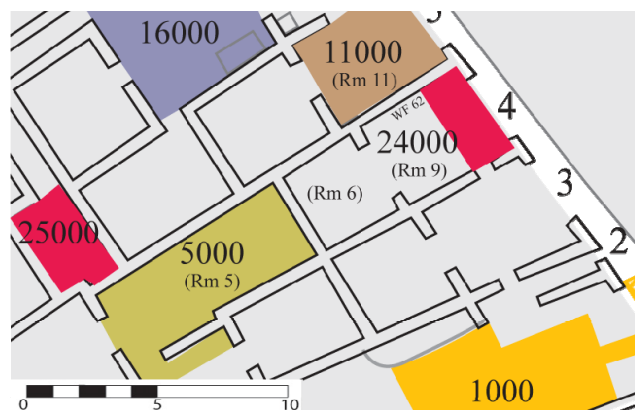


Fig. 2. Plan of Trench 24000.

² Amanda Pavlick (Cincinnati) and John Bennett (Boston) supervised the excavations of Trench 24000.

³ WF = Wall Face. The authors prefer to use the term 'wall face', rather than simply 'wall', as the latter can be less specific and prove misleading, particularly as a wall can cover several trenches, and divide several rooms. To refer to a wall face, on the other hand, enables one to more easily define and locate a specific segment of a wall on such complex urban sites.

⁴ For Trench 5000, see ELLIS and DEVORE 2006: 2-4.

⁵ For Trench 11000, see DEVORE and ELLIS 2008: 1-4

⁶ Identified by Prof. Mark Robinson (Oxford). For the solid grey lava being associated with Pompeian volcanic vents, rather than Vesuvius itself, see CINQUE and IROLLO 2004: 101-116.

⁷ This topographical evidence also suggests the reason why paleosols were largely absent from earlier trenches excavated in VIII.7.1-4 (such as in trench 1000). The prehistoric plateau clearly fell away more sharply than the later historical plateau would suggest in this area.



Fig. 3. The 'proto-mortar' surface in the northeast corner of the trench (beneath the ranging rods).



Fig. 4. The 'proto-mortar' surface beneath the un-bonded lava wall.

the mortar floor in phase 1 of Trench 11)⁸. This 'proto-mortar' like surface precedes the more common form of mortar surface that appears in Pompeii typically from the 2nd century BCE. Such a surface might have constituted a sidewalk given its orientation and proximity to the – albeit much later and thus higher – street (fig. 3).

An early wall of un-bonded lava stone was potentially the next feature built in the area (fig. 4). The construction of this wall caused the burial of the proto-mortar surface. The wall was located almost precisely where the later WF 62 would be built (Phase 3a), and so it possibly represents an earlier effort to delineate the later property

boundary. There was only a slight change in alignment between this early and the later boundary wall (this early wall aligned more toward true east, rather than the northeastern alignment of WF 62).

Phase 3a-c: Intensification of Building Activity in the 2nd century BCE

Building activity intensified in this area, as with much of the *insula*, in the 2nd century BCE. WF 62 was built with a more substantive *incertum* construction directly above the scant remains of the wall from the earlier phase, establishing what would remain a permanent division between VIII.7.1-4 and VIII.7.5-6. There followed a series of (re)application of surfaces, likely in repair (cf. Phase 3a-c in Trench 29000, below). Given that no major structural changes occurred throughout these events, their indistinguishable dating within the 2nd century BCE, and that so little can be said of them generally, they are here described as Phases 3a-c. The first of these, Phase 3a, witnessed the application of a mortar surface across the room, the fill for which contained Campanian A black gloss ware. An *opus signinum* surface was next (Phase 3b), followed by another packed surface above (Phase 3c). Given the disparate nature of these three floor types, it is probable that some kind of functional change accompanied them, but little can be known from their ware or from any associated artefact assemblages. The fill for the packed earth surface (3c) contained several small votive cups and their fragments, although they probably did not represent a primary deposit for the creation of this floor since they were not associated with any burned deposits or zoological material.

Phase 4: Industrial Activity

From the mid 2nd century BCE to the early 1st century CE, most of the properties in this *insula* supported a series of small, cottage-industry style operations. Room 9 in Trench 24000 seems to have been part of this overall trend toward small-scale industry. A more solid mortar surface was laid over the 2nd century BCE floors and an unlined

⁸ For the mortar floor in Trench 11, see DEVORE and ELLIS 2008: 2, fig. 3.



Fig. 5. Trench 24000, looking east. Note the tank to the left of the picture, the dolium base to the right.



Fig. 6. The drain running west to east toward the *via Stabiana* (beyond the top of the picture).

toward the street (fig. 6). We had excavated the western end of this drain in Trench 5000¹⁰, and thus it was likely the developments in that room (Room 5), or even more likely the room further west (Room 6) where it originated that caused the changes to this street-side room in the seventh phase. A mortar floor was laid over the new drain and the older surface. The brick quoins at the front of the shop were also added in this phase, probably because the drain installation required the raising and re-adjustment of the shop's threshold stones.

The excavation of the drain contents was of some interest given that the range and quantity of material differed considerably to the concentrations we had analysed from the drain's more westerly end in Trench 5000.¹¹ The more eastern end of the drain in Trench 24000 – and thus, further from the 'source' – produced significantly higher concentrations of ecological material. The differences in the quantity of material within the drain, from its source to its output, reflects the process by which the waste material was emptied into the drain; as the water and liquid waste lost its force the further it travelled from the inlet, more waste material was likely to have remained within

tank installed at the bottom of the northern property wall (WF 62; fig. 5). The base of a broken dolium was also installed into the floor, a feature we have seen elsewhere across the *insula* in those phases associated with industrial activities⁹. It could have served a host of purposes such as liquid, pitch, or salt storage, or some kind of mixing base.

Phase 5: Developments in the Augustan Period

All of the industrial features were destroyed in the Augustan period by the creation of a new packed earthen floor that extended across the entire space. The subsurface fill for this floor contained an unusually high degree of iron artefacts. While it cannot be known where these artefacts originated, given their presence in a fill, it does not strain credulity to suppose that they could have constituted waste from the earlier industrial phase in this space. It was likely in this phase that this room, and the one next door to the south (VIII.7.3), were converted into two-roomed shops fronting the *via Stabiana*. This shift from cottage-industry to retail space is common for the entire *insula* in this period.

Phase 6: The Addition of a New Mortar Floor

The packed earthen floor of the Augustan period was updated to a better quality mortar surface in the mid 1st century CE, as dated by the presence of a Claudian coin found in the fill for the surface. There seem to have not been any other structural changes to the space at this time.

Phase 7: The Adaption to Changes Elsewhere in the Property

The Claudian mortar floor did not last long undisturbed. It was cut in Phase 7 for the installation of a drain running west to east

⁹ Cf. Trench 1000 in DEVORE and ELLIS 2005: 6; and Trench 15000 in DEVORE and ELLIS 2008: 10-11, figs 25-26.

¹⁰ See Phase 3 of Trench 5000 in ELLIS and DEVORE 2006: 3.

¹¹ This material was collected and analysed by members of the Project's environmental archaeology team: Andy Fairbairn (Queensland), Susan Palazzo (Michigan), Mark Robinson (Oxford), and led by Emily Holt (Michigan). See also Ellis and Devore 2006: 3.

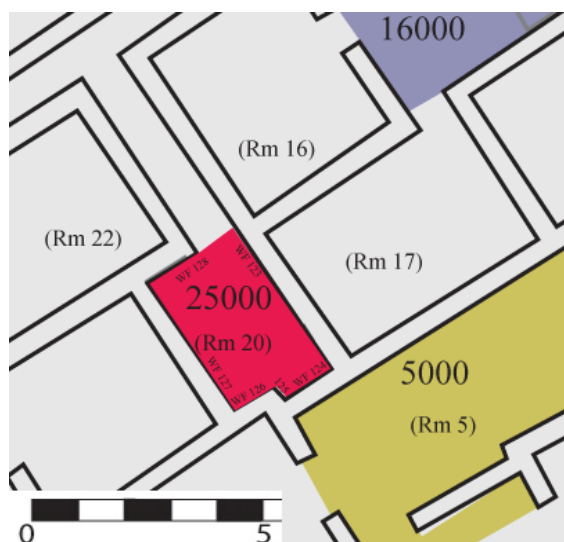


Fig. 7. Plan of Trench 25000.

novelties in processions, staged hunts, and games (munia). Moreover, a much higher number of house mouse (*Mus musculus*) bones were recovered from the drain in VIII.7.9-11 than from the drain in VIII.7.1-4, which likely reflects a greater wastage of food remains in VIII.7.9-11 and, thus, point toward a higher socio-economic status in that central property of the *insula*¹³.

(or even clogged) the drain. The results of this process ought to serve as a reminder that the contents of drains, while always extremely useful and enlightening, can shed differing results depending on the nature of the drain and its gradient, and where along that drain from its source the contents are excavated.

When compared to the contents from other drains excavated throughout the *insula*, further and interesting patterns emerge. In particular, the contents from the 24000 drain suggest a rather clear socio-economic distinction between the activities and consumption habits of this property and the central property of the *insula* at VIII.7.9-11. The contents from the drain in this property (VIII.7.1-4) revealed a diet dominated by inexpensive and widely available food-stuffs: grains, olives, lentils, local fish, and some chicken eggs, with only a minimal amount of more expensive items such as shell-fish and meat. The drain from the central property (VIII.7.9-11), in contrast, included a far richer variety of foods, some of which were clearly imported from outside of Italy: large amounts of meat, shellfish, sea-urchin, along with delicacies such as dormice and even the butchered leg joint of a giraffe¹²; the giraffe bone was likely the result of the auctioning of parts of imported exotic animals that that were principally intended as

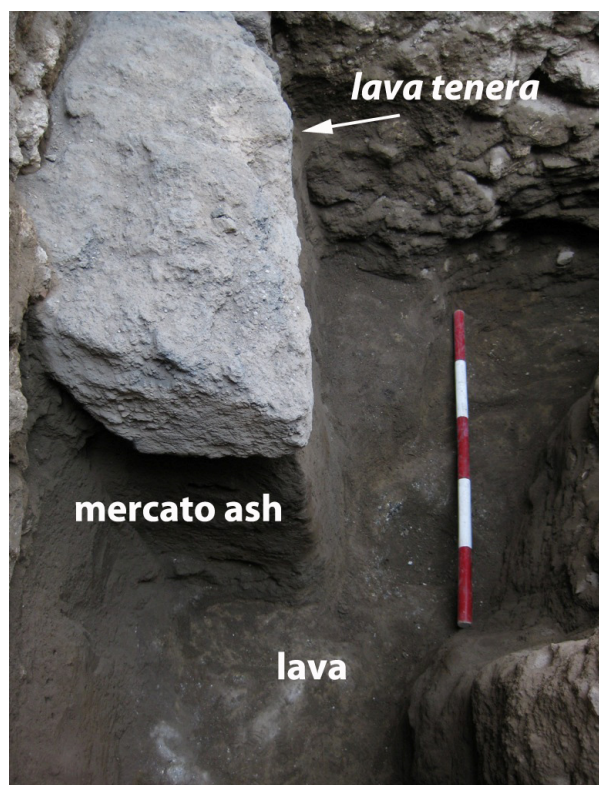


Fig. 8. The earliest deposits in the northernmost limit of Trench 25000. Note the block of lava tenera above the mercato ash layer.

Trench 25000¹⁴

Trench 25000 was excavated within what appeared to have been a small utilitarian room (Room 20) of VIII.7.5-6 (fig. 7). The entire room was excavated with the intention of discerning the structural relationship of this pivotal area between properties VIII.7.1-4 and VIII.7.5-6. The excavations extended as deeply as the prehistoric volcanic deposits. Solid grey lava from the Pleistocene-Holocene eruption and a deposit of silt formed by the mercato ash which dates from around 7000 BCE (here mostly orange in colour) were visible at the bottom of the trench (fig. 8). The uppermost layer of the silt retained a 2cm deep iron pan, indicating this to be the ground layer; the iron pan was formed by the oxidation of organic material (grass?) when it was eventually covered by a levelling fill for the earliest human activity here (see Phase 1, below).

Phase 1: Earliest Structure

The earliest activity is represented by the presence of a large, cut *lava tenera* block that was set directly on the ground (causing the iron pan, mentioned above; fig. 8). Some small pieces of tile were used to level the block; although 'undiagnostic' morphologically, the pieces are to be subjected to rehydroxylation tests to potentially yield important dates¹⁵. The building stone was closely aligned with the cut papamonte building blocks found in a previous season in Trench 16000¹⁶. These 'walls' were extremely ephemeral due to later

¹² The presence of the giraffe bone is the subject of a forthcoming article by Steven Ellis and Emily Holt.

¹³ Pers. comm. with Emily Holt (Michigan).

¹⁴ Allison Emmerson (Cincinnati) supervised the excavations of Trench 25000.

¹⁵ On this new form of testing and analysis of fired pottery and tile, see Wilson *et al.* 2009.

¹⁶ See Phase 1 of Trench 16000 in ELLIS and DEVORE 2009: 2-3.



Fig. 9. The cistern head, looking west.



Fig. 10. The opus signinum floor surface and sluice drain can be seen in the top-right (southwest) corner. Note the later toilet to the left.

constructive – and thus destructive – developments in the area. If they were all part of the same construction, which seems likely, they would therefore represent the fragmentary remains of a 4th century BCE structure (or structures?)¹⁷. Unlike the pappamonte blocks uncovered in Trench 16000, however, the later walls in Trench 25000 followed a different alignment to this *lava tenera* block¹⁸. The levelling fill upon which the *lava tenera* block was placed appears to have formed the only visible surface for this phase.

Phase 2: The 2nd Century BCE Building

Some kind of abandonment of the Phase 1 building, followed by a long hiatus of activity, is as recognisable in Trench 25000 as it has been throughout the *insula*¹⁹. A resumption in the occupation of this area, from around the mid 2nd century BCE, destroyed much of the remains of the Phase 1 deposits. The first constructions included the north wall (WF 128), built onto the upper most layer of the mercato ash (the surface of Phase 1), and the east wall (WF 123), which was built partly into that same mercato ash surface. A cistern was also dug partly into the mercato ash layers before its structure was covered with a thick fill layer, containing black gloss ware from the 2nd half of the 2nd century BCE, to support an *opus signinum* floor surface (fig. 9)²⁰. The cistern was over 2.5 metre deep and lined with hydraulic plaster, bowing slightly to the southwest.

The space was open to the south (into the as-yet undeveloped rear portion of VIII.7.1-4) and west in this period, probably as part of a larger outdoor area. A packed earth surface either repaired in part or entirely replaced the *opus signinum* floor. Given its ephemeral nature and lack of datable material, that event is contained within the discussion of this phase.

Phase 3: New Water Features

The division between properties VIII.7.1-4 and VIII.7.5-6 was extended westward during the 1st half of the 1st century BCE, to cut this part of the property's access to the south. This was achieved by the construction of three separate, but attached and contemporary, southern walls (WFs 124, 125, 126). This somewhat indelicate construction was on account of WF 124 being an extension from the eastern front of the property, while WF 126 extended into this space from the west, each starting on a different alignment from the other. Their misalignment was necessarily joined by the contemporary insertion of WF 125, with the result being the somewhat awkward 'kink' in the southern limit of the space.

¹⁷ The pappamonte blocks from Trench 16000 were dated to the 4th century BCE by some Black Gloss Ware from an associated burnt deposit. See ELLIS and DEVORE 2009: 2-3.

¹⁸ WF 128 sat north of the block and only slightly overlaid it.

¹⁹ Cf. ELLIS and DEVORE 2009: 3; for the same phenomenon across Pompeii itself, particularly in the northwest of the city (Regio VI), see COARELLI and PESANDO *forthcoming*.

²⁰ The black gloss ware included the following forms, which are all of later 2nd century BCE: Morel 1312 F1; Morel 1312 E1; Morel 8251 A1; Morel 2823 A1; Morel 2788 C1; Morel 2587 B1; Morel 2762 E1. This material is under the study of Antonio Ferrandes (Rome).



Fig. 11. The sluice drain through WF 128.



Fig. 12. The capping of the sluice drain (cf. fig. 11) with narrow piped entrance.



Fig. 13. The toilet in Trench 25000, looking west, with much of the contents of the cess-pit emptied.

The area continued to be accessed from the west where its entrance was located. A new *opus signinum* floor was installed, sloping gently southward where it joined a sluice drain that carried water westward beyond the trench toward an as-yet unidentified feature (fig. 10). This *opus signinum* floor was tessellated, a type of flooring which, being of a somewhat higher quality, makes it unusual in the *insula* (cf. Trench 30000, below). A second liquid waste feature was installed in the northeastern corner of the room. This was a sluice drain that was cut through the base of WF 128 to carry waste into a subterranean void of indeterminable size east of the room (beneath Room 16; fig. 11).

Phase 4: Changes in the Augustan Period

The cistern was destroyed in this phase. The cistern mouth was smashed, the void filled with lapilli, and this was capped with a large block of Sarno limestone. The obliteration of the cistern, along with diagnostic material dating this event to the Augustan period, is likely a direct result of the connection of Pompeii to the Aqua Augusta which now brought unforeseen volumes of water to the city for the first time²¹. Water management seems to have given over to waste management in Trench 25000. The drain in the northeastern corner of the room was also capped, but remained to some degree operational by the insertion of a bottomless amphora that served as a channel for liquid waste (fig. 12). A considerable levelling fill was then deposited over and around that feature, which also entirely covered the capped cistern. This fill was topped with a packed earthen floor with a thin mortar surface.

A toilet was built against the south wall (WFs 124, 125, 126; fig. 13). Two low masonry walls separated this area from the room. The eastern wall (WF 123) contained a doorway for access to the toilet from Room 17, and the southern wall (WF 124) had a storage niche, likely associated with the use of the toilet. The *opus signinum* surface from the previous phase (Phase 3) was covered with several layers of tile and mortar, over which a plaster surface sloped toward a cess-pit that had been cut down into the paleosols below.

Phase 5: Creation of Room 20

The construction of the west wall (WF 127), directly over the Phase 2 surface in the north and the Phase 3 surface in the south, closed off the space from the west to establish the area as Room 20 for the first time; this configuration of the room would remain constant through all subsequent developments. The principal access to this

²¹ ELLIS and DEVORE 2009: 11.



Fig. 14. Trench 25000, looking west, with the waste-pit tank in the far right. Note the cistern head to the left of the tank.

toilet itself. It doubtless related to a fire that must have destroyed much of property VIII.7.5-6, as had already been detected from our excavations in 2008 of Trench 16000²². It is tempting to relate the fire damage to the earthquake of 62 CE, not least because the ceramic evidence points to this period. Whatever the cause, Room 20 (and, therefore, the property itself) was restored. The western wall (WF 127) was rebuilt, as was the floor, which retreated in status back to a poorer quality packed earth. The whole space seems to have been used less as a toilet and more as a dump for a tremendous amount of waste material (post-fire or post-earthquake rubble?). The toilet became a waste pit exclusively, its niche sealed up, and a second, raised, tank-like waste pit was constructed in the northwest corner of the room (fig. 14). It was filled with a great amount of burned and butchered mammal bones, fish bone, bird egg shell, carbonised grape seeds and olive pits, sea urchin shell, as well as broken and charred coarse-ware pottery, all of which seems to have been redeposited kitchen waste. A separate deposit, moreover, revealed the burnt remains of whole fruit, such as grapes and figs, which is inconsistent with burnt trash disposal and more akin to the remains of burnt ritual offerings. The distinct deposits of kitchen and ritual waste in this small room suggests it was being used for the waste disposal from activities conducted elsewhere.

Another interesting development of this final phase was that the 2nd century BCE cistern from Phases 2-3, by now concealed under several floor surfaces, was reopened with a new cistern head in the western side of the room and restored for use (fig. 14). The impetus for reopening the cistern was likely due to the devastation to the Pompeian water supply caused by the 62 CE earthquake.

Two final minor points should be made about the configuration of this space. The first is that until 79 CE, the room was accessed by both the corridor through the northern wall (WF 128) and the door to the east of the toilet (in WF 123). This fact is not immediately visible given the almost wholesale destruction of WF 123 during the modern period. The second minor point is that although the presence of a toilet and the general shape of the room suggests a kitchen, no evidence for cooking structures or activities were found here during this season. It seems to have always been associated with water and waste management in the property, while also serving as a light well in the later phases.

Trench 26000²³

Trench 26000 was located along the northern side of a large room (Room 65) toward the rear of the property at VIII.7.12, just to the east of Trench 9000 which was excavated during our 2006 season (fig. 15)²⁴. The geophysical survey of this area indicated several anomalies, one of which could potentially have been the origin of the drain that fed the waste chute located in Trench 18000²⁵. The trench, however, returned only limited information with regard to the urban developments of the space. We discovered that

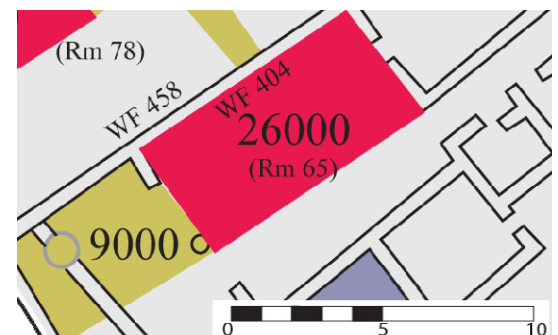


Fig. 15. Plan of Trench 26000.

²² See Phase 3 for Trench 16000 in ELLIS and DEVORE 2009: 5.

²³ Gina Tibbott (Temple) supervised the excavations of Trench 26000.

²⁴ ELLIS and DEVORE 2006: 10-12.

²⁵ See Phases 1-2 for Trench 18000 in ELLIS and DEVORE 2009: 9-10.

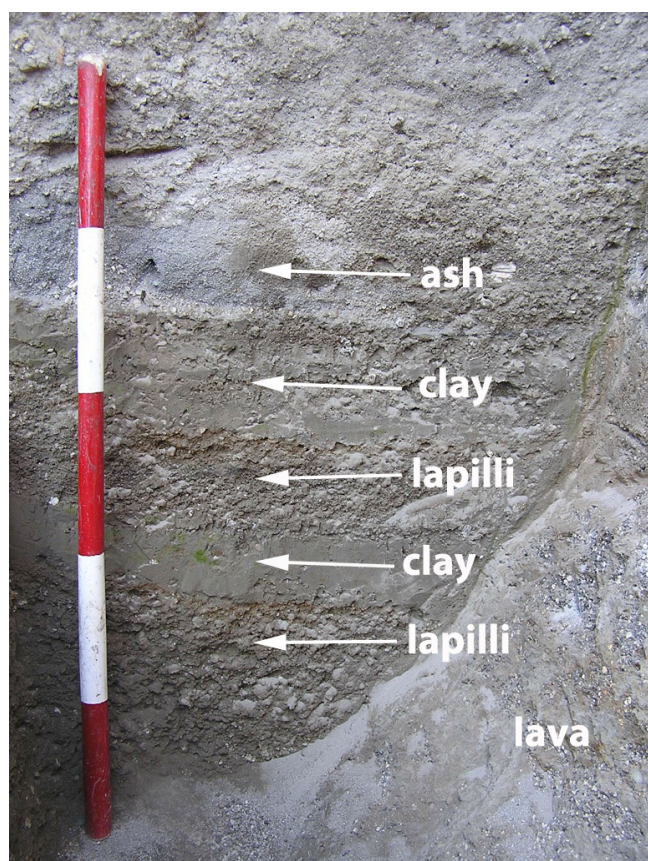


Fig. 16. The sequence of stratified modern fill layers in Trench 26000.

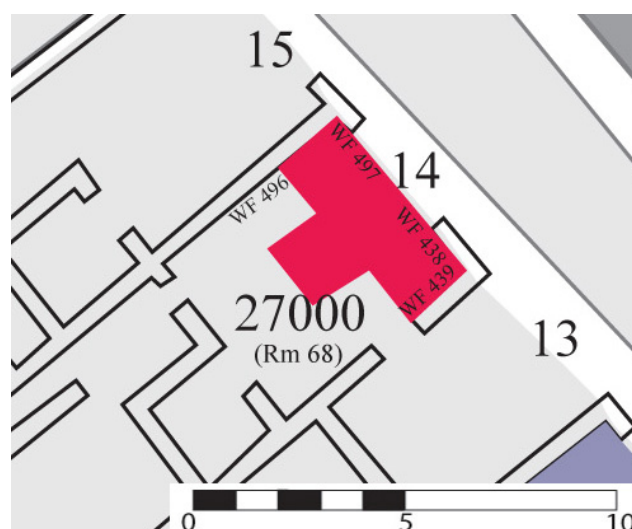


Fig. 17. Plan of Trench 27000.

all of the deposits, at least in the northern half of the room where we excavated, had been removed by the first excavators down to as far as the lava bedrock, almost as much as a metre below the 79 CE surface, and replaced with modern fills. These modern fills were a stratified clay-ash-lapilli (pumice) sequence caused by a lapilli-rich fill being exposed to considerable amounts of rain water (fig. 16)²⁶. In spite of this considerable loss of information, we were at least able to detect that some quarrying of the lava, along with some terracing of the natural terrain, had occurred in antiquity, in part for the construction of the northern wall (WF 404) in this room. There is otherwise little to report from Trench 26000.

Trench 27000²⁷

Trench 27000 was opened in the eastern half of the street-side room (Room 68) of VIII.7.14 (fig. 17). None of the rooms in this northeasternmost corner of the *insula* had been excavated in previous seasons. It was therefore hoped that an outline of a phased sequence could be established for at least VIII.7.14, and that this could relate to our growing knowledge of those construction sequences in the western portions of these northern properties (investigated earlier by trenches 8000²⁸, 20000²⁹, and this season by 28000). While this trench was limited to the eastern side of the room, we were able to excavate as deeply as the solid grey lava from the late Pleistocene-early Holocene period.

Phase 1: Earliest levelling event and surface

The earliest activity involved the levelling of the area with redeposited volcanic soils combined with large pieces of quarried lava. The recovery of a black gloss skyphos base suggests that this event occurred in the 4th century BCE; this date equally accords with the general 4th century BCE period that has been assigned to the earliest activities across so many of the trenches in this *insula*. This levelling event appears to have been associated with developments outside of this particular area under excavation, as no other activity – structural or functional – is recognisable in this phase.

²⁶ The Project's paleosol specialist, Prof. Mark Robinson (Oxford), confirmed that this process is evident in several other parts of the excavated city.

²⁷ Christian Cloke (Cincinnati) supervised the excavations of Trench 27000.

²⁸ ELLIS and DEVORE 2006: 8-10.

²⁹ ELLIS and DEVORE 2009: 15-17.



Fig. 18. The cobblestone surface in Trench 27000, looking north.



Fig. 19. Reused amphora as a down-pipe in the south wall (WF 439) of Trench 27000.

Phase 2: A Cobblestone surface

A cobblestone surface was next laid over the levelled ground (fig. 18). It is difficult to know if this surface was laid as part of the initial levelling event of Phase 1, or as a disassociated later event. While levelling and paving events are naturally often related, the few pieces of datable material for the pavement point to a somewhat later date than the levelling, approximately in the 3rd century BCE. The cobblestone surface sloped slightly to the south and east, and might have constituted some form of street or sidewalk surface. These kinds of cobbles and pebbles, doubtless imported from the bed of the Sarno River or sea-shore, were commonly used for road surfaces in the Hellenistic period of Pompeii. Such surface types typically went out of fashion in Pompeii during the 2nd century BCE (for a similar surface in this *insula*, see Phase 3b of Trench 29000, below).

Phase 3: Creation of the Neighbouring Property (VIII.7.12-13)

The construction of the south wall (WF 439), in the mid 2nd century BCE, represents the earliest structural development for what would eventually become VIII.7.14. This wall essentially divided VIII.7.14 from VIII.7.12-13 to the south. It was built for the southern property (VIII.7.12-13), which maintained this northern side as an undeveloped outdoor space. As with so many of the earliest major constructions in *insula* VIII.7, this construction of VIII.7.12-13 probably followed a hiatus between the 4th and mid 2nd century BCE. Although part of the façade of VIII.7.14 seems to have also been constructed during this phase, or at least some kind of division between this area and the street, a prominent layer of water-lain volcanic sand instead indicates an interruption in activity when Trench 29000 probably remained ‘open’ and unroofed.

The southern property wall (WF 439) must have supported an upper storey for VIII.7.12-13. A down-pipe was built into its northern face (WF 439) to drain liquid waste from an upper floor into the ground of Trench 27000 (fig. 19). The drainage system was composed of mid 2nd century Spanish/Punic and Greco-Italic amphorae built into – but contemporarily with – the wall. The material from this feature contained very high concentrations of fish bone and fish scale of a variety of species and sizes, along with mammal bone fragments, bird bones, rodent bones, and a mineralised grape seed³⁰. The varied diet suggested by the assemblage points toward a consumption level somewhat higher than the modest levels seen in VIII.7.1-4 (from Trench 24000, above) but not as great as that seen in VIII.7.9-11 (see discussion in Phase 7 of Trench 24000, above). The presence of the mineralised grape seed could indicate that human waste was equally discarded in this same drain, because of the very high phosphate levels in human waste that can cause mineralisation.

³⁰ Emily Holt (Michigan) and Mark Robinson (Oxford) identified and analysed this material.



Fig. 20. The Phase 4 drain running west (left) to east (right).



Fig. 21. The rebuild of the southern side of the façade with a brick quoin.



Fig. 22. The two drains from Phase 7, looking west.

Phase 4: Changes to the Drainage System

The drainage system in WF 439 was put out of use by the construction of a new drain that ran alongside that wall – west to east – to drain onto the *via Stabiana* (fig. 20). While a large levelling fill, containing material dating to the late 2nd to early 1st century BCE, was associated with this new drain construction, no surface survived later construction activities. In the centre of the space an amphora was set vertically into the levelling fill to serve as a soak-away feature.

Phase 5: Establishment of the Room

A new mortar floor characterises Phase 5. It caused the abandonment of the drain from the previous phase, which probably had not been in use long; the dating of this phase is placed, for the moment, in the early 1st century BCE. Especially important in this phase was the construction of the north wall (WF 496) and the street-side façade (WFs 438/497); an earlier version of the street-side façade may have existed as early as Phase 3, but the evidence is too poor to know with any confidence. All of these walls, which were plastered, and the first clear floor surface, of mortar, established the definitive arrangement of Room 68 for the first time.

Phase 6: Raising of the Floor

The surface level was raised in Phase 6 and a new mortar floor installed. Other changes include the rebuilding of the southern side of the façade with a brick quoin (fig. 21). This caused the replastering of the façade and all of the walls.



Fig. 23. The large masonry feature of Trench 27000, looking west.

Phase 7: Final Raising of the Floor

The final raising of the floor surface occurred in the mid 1st century CE. This new mortar floor would remain in use until 79 CE. The surface was laid over a large levelling fill which itself concealed two new drains (fig. 22). These drains originated from an as yet unidentified location to the west of Room 68 to expel their contents onto the *via Stabiana*. The contents included minimal fish bone, fish scale, mammal bone fragments, rodent bones, and a carbonised lentil.

Phase 8: Masonry Feature of Unknown Purpose

The southern of the two drains from Phase 7 was partly destroyed in the final years of occupation by the installation in the centre of the room of a large masonry basin (fig. 23). Its original purpose is wholly unclear. The structure was of poor quality, with rounded external corners and a rectangular internal opening. The upper courses reveal evidence for a transverse arch over its top, but little more can be known. The fill found within it was almost completely sterile, hard and clay-like. It appears to have been water related, but had no functional connection to the drain through which it was built. Given that its stratified sequence represents the latest building activity here, and its generally poor quality of execution, there is every likelihood that it could even represent a more modern feature dating to the earliest excavations.

Trench 28000³¹

Trench 28000 was opened in the rear room (Room 78) of properties VIII.7.14-15 (fig. 24). The geophysical survey in this area revealed many features and anomalies whose archaeological recovery could potentially enable us to relate not only the stratified sequences of this trench, but also those from the adjacent Trench 8000³² into the better understood phases of the buildings further south as well as to the *Quadriporticus* to the west and *Odeon* to the north. The development of this northern area of the *insula*, as based upon the results of the earlier excavated trenches of 8000³³ and 20000³⁴, has otherwise remained elusive and largely disassociated from many of the developments recognised elsewhere.

The trench occupied most of the western part of Room 78, running west as far as WF 459 of the *Quadriporticus*; north as far as WF 460; east to as far as the western limit of Trench 8000; while the southern end extended as far as the E-W wall (WF 458) that delimited the northern end of Trench 9000. The excavations extended as far as the prehistoric period, passing through early eruption layers as far as the solid grey lava below.

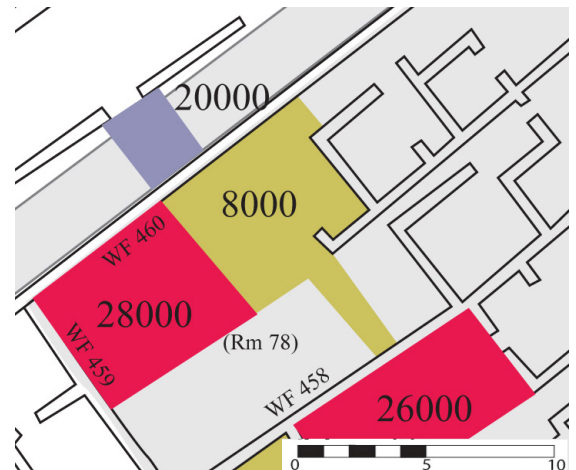


Fig. 24. Plan of Trench 28000.

Phase 1: Delineation of properties VIII.7.14 and 15

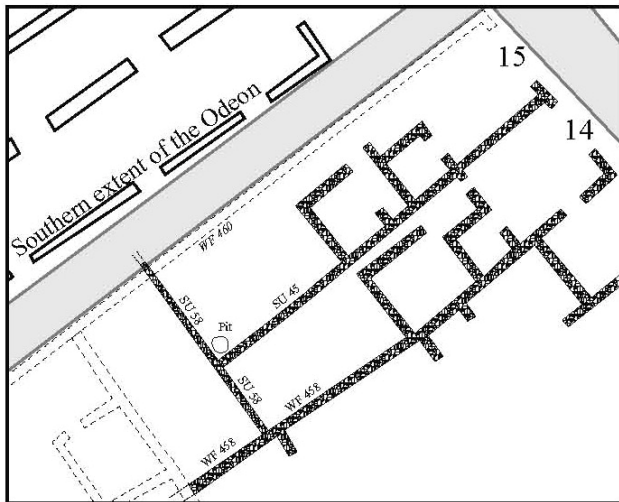
The earliest phase of building activities was recognised in the structural delineation of properties VIII.7.14 and 15 (fig. 25). A single wall (SU 58), running N-S, established the westward limits of each property, probably in the late 2nd century BCE. This back wall was keyed into the E-W terrace wall (WF 458) that marked the southern boundary of property 14, but ran north beyond the *later* northern boundary wall of the *insula* (WF 460), and thus beyond the trench itself. A second E-W wall (SU 45) divided each property from the other; this was likely an extension

³¹ Kevin Dicus (Michigan) supervised the excavations of Trench 28000.

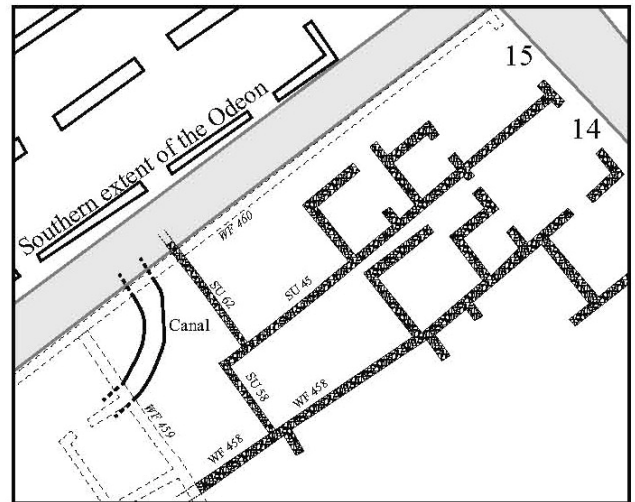
³² ELLIS and DEVORE 2006: 8-10.

³³ *Ibid.*

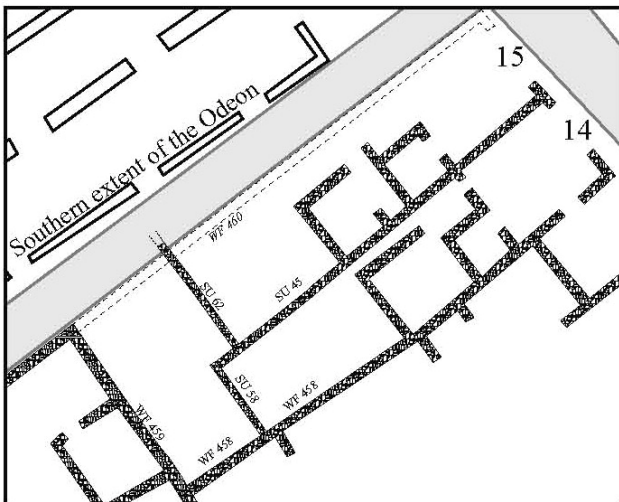
³⁴ ELLIS and DEVORE 2009: 15-17.



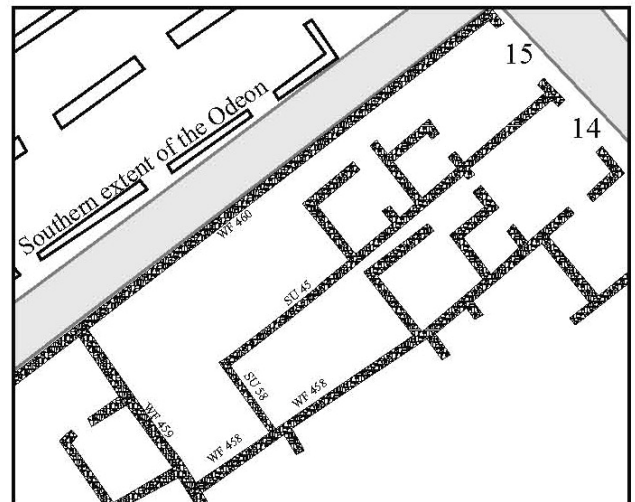
Phase 1



Phase 2



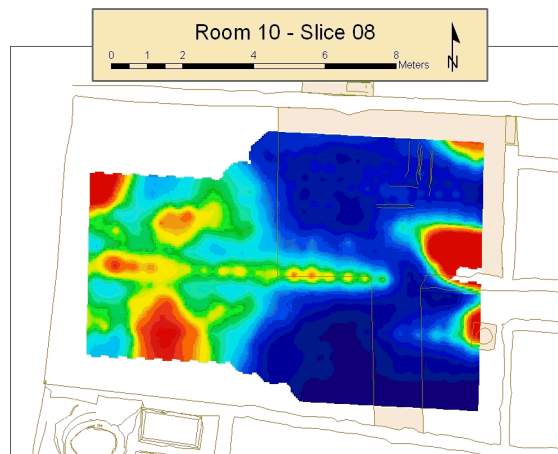
Phase 3



Phase 4

Fig. 25. The architectural arrangement of the western end of properties VIII.7.13-14 and VIII.7.15 (Phases 1-4).

of the still-standing E-W division wall that separates the front rooms of each property. This wall had been somewhat anticipated, given its appearance in the geophysical survey (fig. 26). The organisation of these back walls, all of which were built onto the friable lava, would have thus created two rectangular plots, with an indefinable 'open' area to the west.



A large waste pit was dug into the SW corner of the rear space that had been created for property 15 (fig. 27). Little of the contemporary waste could be ascertained as the pit was largely filled with construction debris in the following phase (see Phase 2, below). Even less can be deduced of the earliest activities in the rear of property 14 as only a small section of a mortar surface was recovered.

Fig. 26. The appearance of the E-W wall (lineal feature) in the geophysical survey of Trench 28000 (image courtesy of the British School at Rome survey team; cf. footnote 1).



Fig. 27. The large waste-pit of Phase 1.



Fig. 28. The canal seen from above, looking east.

important need for the pre-aqueduct community. Systems of subterranean tanks and drains have been recovered from under the orchestra of both the *Odeon* and Grand Theatre, but they seemingly date to a later period than this large canal and might have instead been used for aquatic displays³⁶. That the canal led to an as yet unknown cistern beneath – and associated with – the *Quadriporticus* highlights the infrastructural relationship between the *Odeon* and the *Quadriporticus*. The reduction of property 15 to enable the construction of the canal also illustrates the complex negotiations around the control of space between modest private dwellings and monumental public buildings.

Phase 3: Eastern extension of the *Quadriporticus* suite in the Augustan period

The large canal from Phase 2 was destroyed in this third phase during the construction of the northeastern suite of rooms of the *Quadriporticus*; the construction of WF 459 cut directly through the canal and incorporated its base in the wall's foundations (fig. 25). The upper parts of the canal were mostly destroyed and the canal itself filled with debris, including its own remnants, to allow for a new surface over this area. Both the destruction of the canal and the construction of the northeastern suite of rooms of the *Quadriporticus* (or at least their easternmost extension)

Phase 2: *Odeon* drainage and truncation of property VIII.7.15

Very significant changes occurred in this phase which not only reflect important developments to the urban infrastructure under the new Roman colony, but which also point toward the negotiation of public and private space. The western boundary wall (SU 58) of property 15 was destroyed; its southern part, which delineated the western boundary of property 14, was left unchanged (fig. 25). A new N-S wall (SU 62) shifted the western limit of property 15 further eastward toward the *via Stabiana*. The construction of the new western boundary wall caused the destruction of the waste pit from Phase 1; a coin (*Quinarius*) from the fill of this pit dates the change to some time after 97 BCE³⁵. The remainder of the fill was noteworthy for its abundance of large mammal bones, yet only minimal concentrations of smaller ecofacts, which are otherwise ubiquitous from such contexts across the *insula*, such as fish bone and fish scale. This unusual presence in far greater numbers of large mammal bones, but minimal fish remains, points toward a single fill event, and one which could have originated from the waste remains of a nearby butchery.

Most significant was the cause for the structural changes in this phase: the installation of a massive canal, lined with hydraulic plaster, that snaked its way from the original western limit of property 14 southwestward to beyond the eastern limit (WF 459) of the (*later*) *Quadriporticus* (fig. 28). The northern source of this canal appears to have been the *Odeon*, as the canal lines up almost perfectly with the centre of that building. The early 1st century BCE diagnostic material, including the aforementioned coin, heighten this likelihood, and not least because the *Odeon*, which we know was built in the 70s thanks to the benefaction of two new Roman colonists (*C. Quinctius Valgus* and *M. Porcius*; CIL X, 844), would have constituted one of the largest roofed spaces for the entire city. The channelling and subsequent collection of rain-water from its roofing structure must have been an

³⁵ Identified by the Project's numismatist, Giacomo Pardini (Salerno). Cf. RRC, 332, Nr. 333/1 (Plate XLIII, 4. S).

³⁶ For the excavations under the Grand Theatre, see PARIBENI 1902; for those under the *Odeon*, see SOGLIANO 1906.



Fig. 29. The masonry base of an 18th century water reservoir, seen from above (looking east).

he rear, it had always extended to an as-yet unknown limit to the north. The N-S wall (SU 62) that had enclosed property 15 since Phase 2 was torn down in this phase, providing an extended and L-shaped ‘open’ space for this northernmost property as far west as the *Quadriporticus* wall (WF 459) and south beyond the western limit of property 14 to the original terrace wall (WF 458).

From this point onward we can register very little activity in Trench 28000. Most of the activity was confined further east, in Phases 3-5 of Trench 8000, following the construction of the northern boundary wall³⁸. All later deposits in Trench 28000 were destroyed by modern developments in the area, the evidence for which survives in the foundations of an 18th century water reservoir (fig. 29)³⁹.

Trench 29000⁴⁰

Trench 29000 was opened in the street-side room (Room 48) of VIII.7.11, a property for which we now have a well-defined history of its structural and social developments (fig. 30)⁴¹. The geophysical survey in this space indicated several features and anomalies, one of which appeared to be a similar kind of tank to the several that have now appeared in the entrances to street-side rooms, including in trenches 3000 and 18000 that were excavated directly to the south and north respectively⁴². Additional aims for the trench were to relate and refine the chronologies and phasing of those adjacent trenches (3000 and 18000). Trench 29000 was mostly contained within the eastern side of the room, bound to the north by WF 362 and to the south by WF 301.

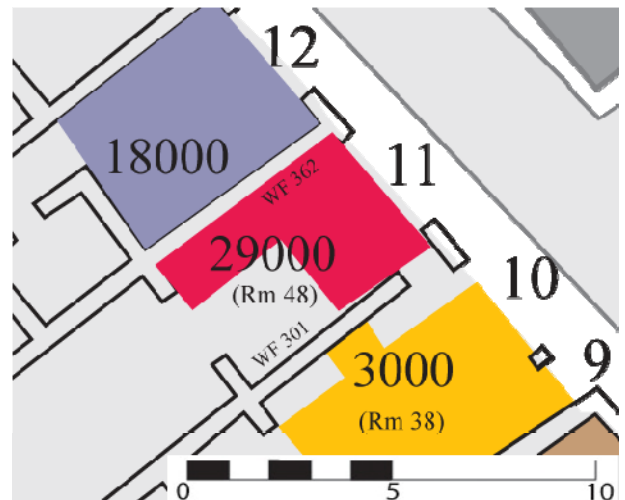


Fig. 30. Plan of Trench 29000.

³⁷ ELLIS and DEVORE 2008: 314-316; ELLIS *forthcoming*.

³⁸ For Trench 8000 see ELLIS and DEVORE 2006: 8-10.

³⁹ SPANO 1906: 53 (July 1906).

⁴⁰ Gina Tibbott (Temple) supervised the excavations of Trench 29000.

⁴¹ ELLIS and DEVORE 2008: 314-316.

⁴² On Trench 3000, see DEVORE and ELLIS 2005: 2-3; on Trench 18000, see ELLIS and DEVORE 2009: 9-13. For some discussion of the morphology, function, and cultural context of these tanks, see, especially, ELLIS and DEVORE 2008: 314-317; ELLIS *forthcoming*. See also ELLIS and DEVORE 2009: 11; DEVORE and ELLIS 2008: 5-6; ELLIS and DEVORE 2007: 121-123; DEVORE and ELLIS 2005: 2-3.



Fig. 31. The large lava boulders of Phase 3a remain in the bottom of the trench (too heavy to remove!).

Phase 1: Earliest surfaces

The earliest activity appears to have been some kind of quarrying or levelling of the lava outcrop in this area. The resulting surface, which varies just 3cm in elevation (at 10.0m above sea level), appears to have been some kind of street or pavement. The discovery of compacted areas of water-worn pebbles adds to this interpretation. Water-lain layers of sand and grit accumulated over these pebbles, probably from the movement of storm-water over the road. Elsewhere, some cultural material was recovered from a dense layer of dark volcanic ash and soil that had accumulated directly over the lava. Two pieces of black gloss fragments – one the rim of a cup, the other a fragment of a Greek skyphos – date this deposit from the mid 4th century BCE⁴³. Similar surfaces have been recovered across the *insula* that equally date to the 4th century BCE, and thus this surface may have been contemporary with the ‘pappamonte phase’ that is known for the *insula*. As with so many of those surfaces and deposits, however, their contexts have been largely lost to later building activities.

Phase 2: First building activities

The first clear sign of structural activity is associated with the construction of the north and south walls (WFs 362 and 301). This event established not just a room, but part of the frontage of a larger building (VIII.7.9-11) that would come to dominate the economic landscape of the *insula* over the following centuries⁴⁴. The dating of this development has been placed in the 2nd century BCE, however, some 3rd century BCE material was recovered from this phase in this trench, so a more secure dating awaits further study of the ceramic assemblages. In relative terms, the general hiatus in activity that we have witnessed across the *insula* between the 4th and the 2nd centuries BCE might explain the possible break in activity between this phase and Phase 1. In any case, the architectural shape established in this early phase will remain for the most part constant throughout the property’s existence, although the function of the space will change. Too little of the simple mortar floor of this phase survives, however, to indicate any kind of activity.

Phases 3a-c: Series of earthen floors

The surface level was raised considerably (approx. 50cm) in Phase 3a to accommodate a new earthen floor. The levelling fill was characterised by the addition of several massive lava boulders, some as large as 60cm in diameter (fig. 31). There followed a series of reapplications of earthen surfaces over this one, likely in repair (cf. Phase



Fig. 32. The tank of phase 4a in the SE corner of Trench 29000.

⁴³ As identified by the Project’s black gloss specialist, Antonio Ferrandes (Rome).

⁴⁴ ELLIS and DEVORE 2007: 121-122.

3a-c in Trench 24000, above). Given that no major structural changes occurred throughout these events, that their dating remains indistinguishable within the 2nd century BCE, and that so little can be said of them generally, they are here described as Phases 3a-c. The new surface for Phase 3b was a cobblestone surface recovered only from the SE corner of the room, under the later tank of Phase 4; such cobblestone surfaces typically went out of use at Pompeii in the late 2nd century BCE. Phase 3c saw the introduction of another earthen surface, recovered from the northeast and southeast corners of the room.

Phase 4a-b: First tank/s

Another earthen surface was created in Phase 4a, but differentiated from the earlier versions by a thin layer of mortar that was skimmed over it. This new surface related to the installation of a tank in the SE corner of the room (fig. 32). The tank measured 80cm x 140cm, and was at least 60cm deep (the lack of any upper edge on the tank prohibits a more exact knowledge of its depth). The tank incorporated the far eastern end of the southern wall (WF 301) and appears to have respected an early doorway midway along that wall, which gave access to Room 38 to the south; this doorway was later blocked (see Phase 6, below). The tank was lined with a pink plaster, the same type of which remained attached to the south wall (WF 301) further to the west, but in a largely unexcavated area. That a second tank might have existed there during the same phase is a good possibility.

Phase 4b was marked by the addition of a new earthen floor laid directly over the last. The tank remained in use concurrently with this new floor, and little else appears to have changed in terms of the structure of the room. Both Phases 4a and 4b were largely destroyed by later developments, thus obscuring any interpretation of the function of activities in Room 48 during this time.



Fig. 33. The possible fish-salting vat (or *cetaria*) of Phase 5, just inside the threshold from the *via Stabiana*. Cf. fig. 37.

Phase 5: Central tank phase (salted-fish production)

An important renovation was undertaken in this phase, dating more securely than any of the earlier phases to the later 2nd century BCE⁴⁵. It began with the almost complete destruction of the walls of the tank/s. A new earthen floor surface, raised about 25cm above the last, completely buried whatever remained of the tank/s. Installed into the new surface, and raised in some part above it, was a considerably larger tank (at least 0.82m³; fig. 33). This tank was very similar in morphology, location, and chronology to those tanks already excavated by the Project and which have been interpreted as fish-salting vats, all of which, including this example, date from the later 2nd century BCE through to the Augustan period⁴⁶. It was located in the centre of the room, just inside the threshold of the main entrance. While all of its four walls were built separately, with each abutting the other, each wall shared the same construction style with the largest rubble being used for the lower course, followed by the inclusion of larger pieces of roof tile in the next course, then the

smallest rubble forming the third and final course. The interior of the vat was lined with plaster in a single event. As no trace of an upper edge survived due to the later destruction of this phase, it remains impossible to determine a more precise depth and volume.

This is the fourth street-side room to be excavated in this *insula* thus far that contained a tank that most probably operated as a fish-salting vat (Lat. *cetaria*). The others along the front of this *insula* are located at VIII.7.7-8, VIII.7.9-10, and VIII.7.12. These vats share striking similarities with others known throughout the city, almost all of which unfortunately remain unpublished, or poorly so: I.12.3, II.1.1/13, VI.1.2, VI.1.4, VI.1.5, VI.1.13, VI.1.14, VI.1.17, VII.9.49, VII.9.50, and possibly the tanks uncovered by Maiuri among the Republican shops found under the

⁴⁵ The dating follows the recovery of the following forms, all of which are known from the later 2nd century BCE: Morel 7443 A.1; Morel 2621 F1; Morel 2233 and 2234; and Morel 1312 B1. The black gloss wares are under the study of Antonio Ferrandes (Rome). A Republican Triens (C29-42) with Mercury on the obverse, a prow on the reverse, adds some further security to this date; the coins are under the study of Giacomo Pardini (Salerno).

⁴⁶ See note 42, above.



Fig. 34. The drain of Phase 6 heading east for the *via Stabiana*. Note the use of the threshold as a capping stone. That same threshold stone was cut for use as a single 'night-door', while the longer threshold stone was cut for a double-door to give a more open access to the property from the street.

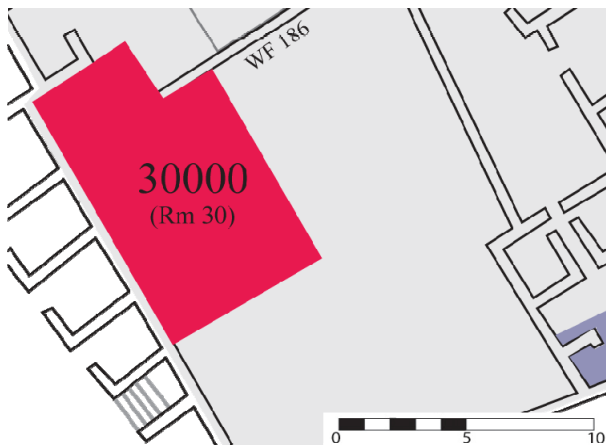


Fig. 35. Plan of Trench 30000.

few functional characteristics or changes leading up to the 79 CE eruption. We can expect, however, that the building suffered considerable damage during the earthquake period of 62 CE as parts of the north and south walls (WFs 362 and 301) show signs of rebuild from as low as the floor level. That few phases, let alone structural changes, can be recognised from this phase onward reflects a similar phenomenon found among most of the trenches in this property.

Trench 30000⁵⁰

The large back garden space (Room 30) of property VIII.7.5-6 was cleaned to reveal a masonry *triclinium* dining couch, and several very small exploratory trenches were excavated near it in order to ascertain the state and condition of features identified in the original 1906 clearance of the area (fig. 35)⁵¹. Our principal intention was to record

Eumachia Building in the forum.⁴⁷ A fuller discussion of the significance of these fish-salting vats to the Pompeian and broader Mediterranean economy is reserved for a forthcoming publication.⁴⁸

Phase 6: Wholesale changes in the Augustan period

As has been witnessed across the entire site, and not least for those contexts associated with the salted-fish production of Phase 5, a massive change in the use of space occurred in the late Augustan period. The fish vat was partly destroyed and filled with building debris, enabling the creation of a new plaster floor. A door was opened in the far eastern end of the south wall (WF 301) to access Room 38 (Trench 3000); this likely coincided with the closing of the original doorway in the middle of WF 301. A new drain was installed into the new plaster floor, running from west to east toward the street and utilising the northern wall of the defunct fish-salting vat as a foundation. The drain was unlined but large, measuring 30cm wide with a 10cm (wide and deep) channel within it. The raising of the floor and the drain itself caused the façade to be rebuilt; the new quoin and threshold served as part of the capping for the

new drainage system (fig. 34). This brought about a rebuild and reconfiguration of the threshold stones for the property's facade. The threshold was raised in this process and, although narrowed, it now contained two separate doorways. At the threshold's northern end a more private 'night door' opened from the street, while across the remainder of the space to the south a new double-door (the more 'public' entrance) led into the property (see fig. 34). The opening of this double-door aligned precisely with the view from the street sidewalk to a new dining room that had replaced the tannery at the rear of the property in the related phase⁴⁹. The entire property had now been converted from a mixed industrial use – where fish-salting had accompanied tanning operations – into a more commercial enterprise with multiple dining rooms and kitchens.

These significant functional changes caused this room to become an entrance corridor during this commercial restaurant phase. Given its conversion to an entrance and passageway, the room registered from this period relatively

⁴⁷ On those under the Eumachia Building, see MAIURI 1973: 54-59. For the examples at *insula* VI.1, see the preliminary report in JONES and ROBINSON 2005: 271.

⁴⁸ ELLIS *forthcoming*.

⁴⁹ See Phase 3 of Trench 13000 in DEVORE and ELLIS 2008: 10-11.

⁵⁰ Gary Devore (Stanford) supervised the excavation and cleaning activities of Trench 30000.

⁵¹ SPANO 1910: 263-264.



Fig. 36. Degraded remains of the triclinium, looking south.



Fig. 37. The scant remains of the plaster that once lined the triclinium.

these features prior to their potential destruction, as deep earthworks had been proposed for this area for the maintenance of water facilities attached to the nearby modern toilets in the *Quadriporticus*.

The dining couch, which had been mostly buried by modern fills for the past century, was found to be in a poor and degraded state (fig. 36). The uppermost layers of its rubble core had been worn away through exposure, leaving only the lowest courses of rubble masonry. The heavy vegetation that has grown here since the early 20th century had caused roots of both large and small plants to practically pulverize the mortar that once held the stones of the couch together. Only a tiny amount of the original plaster that covered the couch was visible, and this was only in the folds of two interior corners at the very base of the structure (fig. 37). These fragments confirm the early excavator's report that the plaster was once painted purple or dark red⁵². The shape of the couch, with one side (the northern) shorter than the others, and thus imitating three movable beds placed in a U shape, was of particular interest to Spano (see fig. 36)⁵³.

In the centre of the dining couch there was a small table, also now highly degraded. It held a small semi-circular niche or depression on its eastern side where again only a tiny amount of plaster survives. The space between the couch and the table was too small to allow a person passage, but was instead within easy reach of those reclining on the couch.

Some fragmentary evidence of a degraded *opus signinum* floor surface survives below both the table and the couch. In spite of its poor condition, two small pieces of black and white marble *sectile* remained *in situ*, suggesting that the floor there had an inset design. Immediately to the north of the couch's shortest flank, a planting pot

was found. Flotation of the soil found inside did not recover any of the typical biological material associated with planting contexts, but instead mirrored much of the surrounding fill layer. Nevertheless, the pot was set into the ground and may thus be an indicator of plantings to the north of the dining feature.

To the south of the couch, our clearance picked up only the slightest remnants of a pool or basin feature that had been uncovered in the first excavations⁵⁴. Root activity from two large trees that now sit to the southwest of the dining couch have mostly destroyed this feature. Part of the pool's northern flank and associated curve in the masonry were identified in the cleaning, however any solid floor the feature may have once had is now completely gone. We were therefore unable to detect any evidence for piping or water drainage except for a soak-away chute attached to the southeast corner of the feature.

This chute seems to have had two phases to it, thus constituting the only evidence in 30000 for change over time. Originally, a soak away chute in this area seems to have been a stand-alone feature. It consisted of a deep chute (bore tests demonstrate that it extended at least two metres from its top lip) with a very solid capping of tessellated *opus signinum*. This capping was thick, substantial, and incorporated a small channel in its side draining to the west. This tiny channel may have functioned as a sluice for runoff near the top of the capping. Such decorative *opus signinum* in our *insula* is rare, having been found in just one other place (incidentally in the same property; see Phase 3 of Trench 25000, above). Both examples of *opus signinum* may represent contemporary early

⁵² *IBID.*: 264.

⁵³ *IBID.*: 264-265.

⁵⁴ SPANO 1910: 264.

developments in this property before the installation of the *triclinium* arrangement; where it is found in Trench 25000 it dates to the 1st half of the 1st century BCE. When the *triclinium* was built, the earlier lower surface of the garden seems to have been raised to accommodate the new structure, and in fact a sondage exploration seems to suggest that the *triclinium* was built on a massive levelling fill. This necessitated the raising of the chute access hole to communicate with the higher ground level, and a masonry extension was constructed above the old decorative *opus signinum* capping (seemingly of inferior or more rustic material). Presumably, waste water was still flowing down the same lower chute and out the earlier channel (to be absorbed by the surrounding ground and fill), but in the newer extension of the chute, a second small channel was inserted just under the new capping. It seems that both channels, like a modern swimming pool overflow hole, prevented waste water from overflowing if it was taking too long to dissipate by providing a secondary path into the surrounding ground.

One final feature associated with this waste-water chute must be mentioned. At the same time as the raising of the garden's ground level and the construction of the upper masonry portion of the chute, a semi-circular basin was built along the chute's northern side. It was placed on the top of the earlier *opus signinum* capping and seems to have had a mortar base but no finishing plaster. The basin had no communication with the chute but the mortar and stones used clearly indicated it was part of the same building phase as the rebuild of the waste chute. The current interpretation is that it was some sort of planter associated with the latest capping, perhaps to even mask the access hole from those reclining on the dining couch. This feature seems to have not been seen by the 1906 excavators, as it does not show up on any previously published plan.

Some clearance in the northern sector of Trench 30000 revealed that a doorway with marble threshold existed between this area and the *triclinium* area of VIII.7.9-11⁵⁵. A cooking surface just off the side of the dining couch and against WF 186, as seen by early excavators, is now completely gone (probably due to the installation of modern electric cables that were laid in a brick-capped channel running along the northern edge of this property). WF 186 seems to have originally extended as far west as WF 184. Any better understanding of these walls is precluded by the modern construction of a 2 metre-deep waste pit.

Summary

The excavation of 30 trenches across an entire Pompeian *insula*, combined with standing architectural and ground-penetrating geophysical surveys, artefactual and environmental studies of the material remains, and archival research has led to a comprehensive study of the development of six neighbouring Pompeian properties. Their chronological development has already been outlined in the introduction to this paper. The contextualising of that history with the cultural, economic, political, and historical developments across Pompeii, Italy, and the wider Mediterranean remains the greater – and doubtless more rewarding – challenge. We now better understand the response of the Pompeian middle-class to the economic changes that swept across the Mediterranean between the 2nd century BCE and the 1st century CE. The rise and reorganisation of the salted-fish cottage-industry that characterised this neighbourhood is especially pertinent, given its abandonment – or, perhaps, relocation outside of the city – following the arrival of abundant and cheap imported salted-fish products fostered by the revitalised Augustan economy⁵⁶. The simultaneous conversion of these workshops to outlets given over more exclusively to retail and hospitality suggests a certain elasticity and buoyancy in the urban economy at seemingly all levels of the socio-economic spectrum. The marked differences in consumption habits between each of these outlets, with some enjoying rare exotic species (including giraffe) while others were limited to local foodstuffs, testifies to the broad range of living conditions across otherwise 'middle-class' families. The social, structural, and economic relationships between several of the properties and their neighbouring monumental spaces – especially the *Odeon* and *Quadriporticus* – is equally illuminating, revealing something of the complex negotiations in the fluctuating ownership and control of space.

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⁵⁵ For the *triclinium* in VIII.7.9-11, see Trench 2000 in DEVORE and ELLIS 2005: 3-5.

⁵⁶ See ELLIS *forthcoming*.

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Acknowledgements

We would like to gratefully acknowledge the generous assistance and support of Pietro Giovanni Guzzo and Antonio d'Ambrosio. We consider their invitation to work in Pompeii an honour and a privilege, and wish them well in their retirement from the *SAP*. Annamaria Ciarallo, and her team at the Pompeii laboratory, very graciously shared their resources and space with us, for which we are most grateful. We would especially like to thank Giuseppe Di Martino for his tireless assistance on all matters. This Project succeeds because of his generosity. Ernesta Rizzo is equally responsible for all of the good fortune experienced by the Project, and we thank her with much fondness. All of our team enjoy the companionship and warm friendships of the custodians at the *Porta Stabia*. Of course our sincerest appreciation is extended to all of the members of our team for their good sense, energy, and passion for the research. Steven Ellis thanks his research assistants at the University of Cincinnati – Allison Emmerson, Amanda Pavlick, and Catherine Baker – for their dedication, long hours, and first-class contributions outside of the field-work season. Steven Ellis also thanks Gregory Tucker (British School at Rome) for the creation of figure 26, and John Wallrodt (Cincinnati) for the creation of figure 25. The Project is generously funded by the Semple Fund of the Department of Classics at the University of Cincinnati and in part by a Research and Exploration Grant to Steven Ellis from the National Geographic Society.