

Cleaning the Laundries II. Report of the 2007 campaign

Miko Flohr

Introduction

'Cleaning the Laundries' is a fieldwork project aiming to enlarge our insight into the material remains of the excavated Pompeian *fullonicae*. While many workshops of this type are known, their archaeological evidence generally has not been studied to great detail. By removing modern layers of sand and dust, the ancient floor levels, which generally contain a lot of information, are brought to light, documented and studied. In 2006, three small *fullonicae* were investigated. The 2007 season focused on two large workshops (VI 8, 20.21.2 and VI 14, 21.22) and another small one (VII 2, 41).

House VI 8, 20.21.2

This complex, which was excavated in 1825, consisted of a small *atrium* and a vast peristyle with residential and utilitarian rooms along its east and south sides (Fig. 1). The main working area of the *fullonica* occupied the entire west portico of the peristyle and a small part of the north portico. It was divided into two parts: the northeastern part contained six of the typical 'treading stalls', where clothes were soaped in, whereas the west wing was occupied by four basins that were used for rinsing. In the period after the excavation, the ancient floor layers were gradually covered by sand and debris everywhere in the house. This was particularly the case in the workshop, where, for example, the rinsing basins were partially or completely filled up. This all made it hard to understand the functioning of the *fullonica*, especially since many relevant details were not recorded by the excavators or later investigators, such as Fox, who produced a detailed map of the workroom in the 1880s (Fox 1905, Pl. LIII). There were several problems that could only be solved by surface cleaning:

- The water system of the *fullonica* could only be understood if all connections between the basins were known. This meant that all basins had to be emptied. Especially the basin in the northwestern corner needed attention, since it had become completely invisible.
- On the Fox map, a seventh treading stall was indicated between the southernmost basin and the east wall of the workroom. This stall had become completely invisible, but its existence would be of extreme importance for our

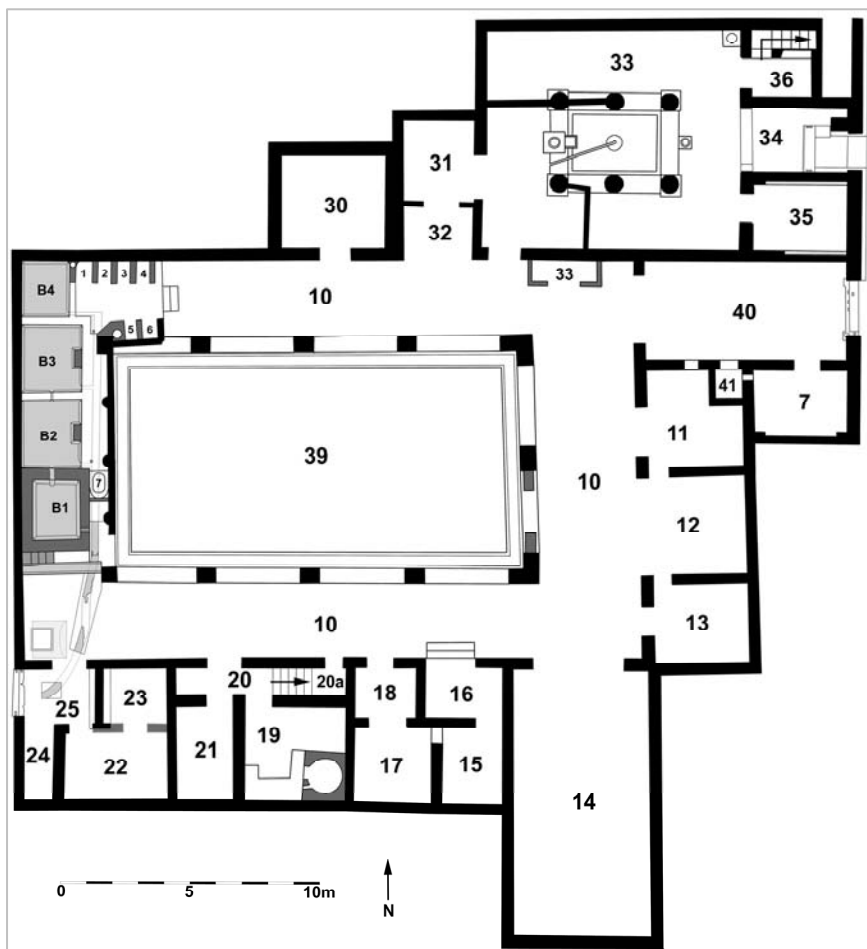


Fig. 1. Pompeii, house VI 8, 20-21.2, Plan.

understanding of the workshop, also because it would make it highly unlikely that there was an access to the working area from the south portico.

- Near the west end of the south portico, Fox' map shows a square hole. While its relation to the workshop was unclear, it seemed important to investigate its nature.
- Little was known of the drain that carried the wastewater away from the fullery. While it seemed likely that it ran east of the basins of the rinsing complex and mouthed on the street near the back entrance of the house in the Via della Fullonica (VI 8, 2), nothing of it was visible inside the house.

These four problems were the main objectives of our intervention. A fifth problem, regarding the nature and layout of the individual treading stalls, could not be addressed because of the bad state of the north wall in that area.

Rinsing Complex

The rinsing complex consisted of three basins (B1, B2 and B3), whereas a fourth basin was attached to its north side. The floor and the walls have been lined with waterproof plaster and all corners and angles have been strengthened with the usual rim. B1 is surrounded by high walls and has a floor on a higher level than that of the other two (Fig. 2). With a surface of 4.45 square meters and a maximum water level of 95cm it could contain about 4100 liters of water. The basin was fed with fresh water through a lead pipe. While no remains of the pipe itself have been discovered, its imprint can be found in a small depression in the east wall of the basin, near the SE corner (Fig. 3). The mouth of the pipe was surrounded by a square or rectangular piece of lead, of which the imprint remains on the inner wall of the basin. The outer diameter of the lead pipe was only 4 cm. As the basin did not have an overflow, there cannot have been a continuous flow of water and a tap must have been used to regulate the inflow. This might have been situated on top of the east wall. The basin could be emptied through a drain in the north wall, which opened onto B2. While the hole of this drain is intact, no remains of a terracotta or lead pipe have been preserved and it is not possible to reconstruct how the drain was closed off and opened. Though the basin itself was not easily accessible, it could be approached from the south side by four steps, from the top of which about half of the basin was within an arm's reach.

The other two basins had a slightly larger surface of 6.10 square meters but a considerably lower maximum water level (Fig. 4). With a depth of 60cm, they each had a capacity of about 3500 liters. However, as

there neither of the basins has an overflow, we do not know to what level these basins usually were filled, but it may be guessed that the most common level was about $1\frac{1}{2}$ 'R or 44.5cm. The floors of these basins were less well-preserved than that of B1: the top layers had only been preserved along the side walls and in the center of the floor, even the lower layers were found heavily disturbed. Along the west side of both basins, modern walls have been built, probably to stabilize the *opus quadratum* west wall, which strongly leans to the west and is nowadays shored up by metal buttresses on the street. In antiquity, the west wall of the house also functioned as the west wall of B2 and B3. Both basins were accessible from the work floor east of them by means of a step made of a basalt block, the irregularities of which were filled up with waterproof plaster. For their water-supply, B2 and B3 were dependent on B1, which suggests that the water from this basin might have been reused in the other two. However, a completely filled B1, when emptied into the lower basins, would be able to fill both basins only to a height of 35,5cm,



Fig. 2. Pompeii VI 8, 20-21.2, fullonica: basin B1, overview.



Fig. 3. Pompeii VI 8, 20-21.2, fullonica: basin B1, mouth of the water supply in E wall.



Fig. 4. Pompeii VI 8, 20-21.2, fullonica: basins B2 and B3, after cleaning.



Fig. 5. Pompeii VI 8, 20-21.2, fullonica: basin B 4, overview.

carved out. Similar treading stalls can be found in the *fullonica* of Stephanus. The stall was on the same level as the passageway east of B2 and B3. In front of it was a hole in the floor that was connected to the drain. The floor on the south side was on a lower level and on Fox' map, a wall appeared at the south side of the stall, which indicates that the stall was only accessible from the north. S7 was thus situated in a position remote from the other stalls and seems more related to the complex of rinsing basins. This may also suggest that it had a function that was somewhat different from that of the other stalls and that it played a role only after the clothes had passed through B3 and B2 and thus had undergone the first and most thorough phase of rinsing. Departing from this assumption, two possibilities emerge. One is that the clothes were inspected and, if necessary, were soaped in again and sent back to B2 and B3. The other option is that the clothes would need an additional treatment with some chemical agent, after which the clothes passed to B1 for the final soaking. Given the fact that there was only one stall for this purpose, it is likely that this treatment did not cost much time or did not involve all clothes. There are two parallels for this stall. One is in the *fullonica* of the Via degli Augustali at Ostia, where two fulling stalls have been built on the wall between the second and third basins of the rinsing complex¹. The other is the *fullonica* at Fréjus, where a separate

which is only just above the level of the steps. Hence, it is likely that the used water from B1 was supplemented with a certain quantity of fresh water directly from the lead pipe. While the two basins were connected by a terracotta pipe in the wall between them, each had its own drain, in both cases in the southeast corner. In B2, this drain was made of two *imbrices* put on top of each other, while in B3 a terracotta pipe was used.

North of B3 was a fourth basin which was not connected to the complex of rinsing basins (Fig. 5). It has a surface of only 3.49 square meters. As the surrounding walls have not been preserved, the height and thus the capacity of the basin are unknown. The floor was on a considerably higher level than that of B2 and B3 and not much lower than that of the area of the fulling stalls. There was a drain in the southeast corner made of two *imbrices* put on top of each other. The floor of this basin clearly slopes into the drain. Remarkably, there are no traces of a lead pipe or other means of filling the basin with water, which suggests that the amount of water used here was fairly limited and the walls of the basin might have been relatively low. The nature and function of the basin is not entirely clear, but it seems unlikely that it was used for rinsing.

Fulling Stalls

In the narrow corridor E of basin B1, the expected seventh fulling stall was found (Fig. 6). It actually was a block of travertine in which an oval basin (Ø 46.5-73cm, depth 41cm) was

¹ PIETROGRANDE 1976: 55-70.



Fig. 6. Pompeii VI 8, 20-21.2, fullonica: travertine fulling tub S7.



Fig. 7. Pompeii VI 8, 20-21.2, fullonica. Drain, northern part.



Fig. 8. Pompeii VI 8, 20-21.2, room 25: drain from fullonica.



Fig. 9. Pompeii VI 8, 20-21.2, back entrance 2: drain from fullonica.

height of the south end of the basin traces were found that point to the presence of a filter (Fig. 11). They consist of limish sediments along the two sides of the drain and two small fixing holes in the bottom. South of the working area, in the portico, preservation circumstances were worse. The canal was with 27cm slightly wider, but its height cannot be reconstructed. Except for the parts near the working area and the door to room 25, the walls and the floor of the drain have been completely eroded away. Again, the fill of the canal contained a lot of pottery, particularly in the part near room 25 (Fig. 12). This ensemble included little diagnostic material, but consisted exclusively of coarse ware,

treading stall is situated on the east side of the rinsing basin, whereas the other three are along the west wall of the room².

Drainage system

The discharge systems of B2, B3 and B4 and of the area of the fulling stalls suggest that all water from the various parts of the workshops must have been collected in one drain and that this drain must have run east of the two basins, underneath the podium. Parts of this drain have been found at four spots: in the corridor E of basin B1, south of S7 (Fig. 7), near the door between portico 10 and room 25, in room 25 (Fig. 8) and in the sidewalk in front of entrance VI 8, 2 (Fig. 9). It ran in a straight line directly next to the rinsing complex in southern direction. South of B1 it bore slightly to the west in the direction of the door to room 25 (see map, Fig.

1). Shortly before this door, the drain began to curve further to the west towards the back door of the house. Passing under the threshold it made a turn to the south so that the wastewater would approach the street with an angle of 45° and would flow away in the right direction without using more of the street than strictly necessary.

Not all parts of the drain were found undisturbed. The first part, next to B1, was in a good state. The width of the canal was here, at the bottom, 16cm and it was 33cm deep. The west wall was completely intact, but parts of the east wall had disappeared. The northern half of this part of the drain was filled in with sand and rubble, but the southern half, where the east wall was no longer extant, had been partially filled up by a modern restoration. On the bottom of the canal, pottery sherds were found, mostly of coarse pots and jars, but there were also some fragments of finer pottery, including Pompeian red-ware (Fig. 10). At the

² RIVET 2000: 259.



Fig. 10. Pompeii VI 8, 20-21.2, fullonica: drain, pottery ensemble from section A.

probably the remains of several amphorae. In room 25, which had a much higher floor level, the canal was found relatively undisturbed, even though the ancient floor of the room is no longer extant. Its width was 27cm and it was 17cm deep. Walls and floors were intact, but no traces of a covering were found. The canal was completely filled up with sand and debris, in which a lot of pottery was found (Fig. 13). Again, this was mainly coarseware, including several sherds of amphorae with remains of a white, limy substance. Finer pottery included the remains of a small pot and some Pompeian red-ware.

As the fill of the drain in all parts contained a lot of residual material and there was a notable absence of contemporary materials, it could be suggested that it had already been filled up in antiquity. However, this seems



Fig. 11. Pompeii, fullonica VI 8, 20-21.2, work room, drainage channel next to basin B1. Traces of filter.



Fig. 12. Pompeii VI 8, 20-21.2, fullonica: drain, pottery ensemble from section B.

unlikely. It would mean that the *fullonica* went out of use as the existence of a second drain can be positively excluded. Thus, while the workshop itself was not dismantled, the house-owners would have invested time and money to open up the drain, fill it in and cover it again. This is not a very efficient way of restructuring the house. A more plausible explanation could be that the pottery from the drain, which constitutes an ensemble of utilitarian and domestic vessels, were found in the house during the excavation, but were not inventoried and left on site. This appears to have been common practice throughout the excavation history of Pompeii, even in better-documented periods, such as that of Maiuri³. In the decades after the excavation, this pottery gradually broke down and the fragments simply ended up in the drain because it was the lowest point in the area.

Vaulted space underneath porticus 10

Near the west end of porticus 10, Fox' map showed a square feature. While Fox does not discuss it in his text, the feature is referred to by Bréton, who saw it as a basin embedded in the ground. Traces of this feature were found directly below the modern top soil



Fig. 13. Pompeii VI 8, 20-21.2, room 25: drain, pottery ensemble from section C.

³ ALLISON 2006: 8.

and consisted of a square area of about 70x70cm, the surface of which was covered with fragments of roof tiles, *imbrices* and other coarse materials (Fig. 14). Around the area, the top layer of the original peristyle floor of white marble with polychrome decoration is preserved over a width of about 10cm. The fill of roof tiles was removed and revealed a square hole, of which the walls were covered by plaster. The fill did not contain any relevant finds. At a depth of 42cm, a thin layer of sand was encountered, below which were undisturbed *lapilli*. It was decided to leave these unexcavated.

It turned out that the square hole was a shaft giving access to a vaulted cistern or a small subterranean room that was not excavated in the 19th century. At a depth of 45cm, the plaster of the north and south sides curved outwards. Traces of a vault construction could be seen in the east wall. Below this, it was possible to see the plastered ceiling of the space running away to the east. As the *lapilli* had not completely filled up all the empty space, it was possible to trace the eastern back wall at 58cm from the shaft. Thus, the cistern or room extended north, east and south of the shaft. Its exact size and depth are unknown. It seems that the vaulted space did not belong to the original layout of the peristyle and postdates the original marble floor: the walls of the shaft were built against and partially over it and there are traces of cuts at several spots.

As to the nature of the space, what argues against it being a cistern is the lack of a system of provision and discharge of water: there is neither a connection to the collection system in the peristyle, nor an overflow to get rid of excess rainwater. The alternative, that it was a small room may thus be more probable. Possibly, it was used for cool underground storage for goods used in the workshop or in the house.

House VI 14, 21.22

This medium-sized *atrium* house contained a *fullonica*, inserted into the house after it had collapsed due to earthquake damage in the first century AD (Fig. 15). Both the house and the workshop were relatively well-preserved, and much information can be directly derived from the standing remains, especially in the main working



Fig. 14. Pompeii VI 8, 20-21.2, porticus 10: SW corner. Shaft giving access to vaulted underground area.

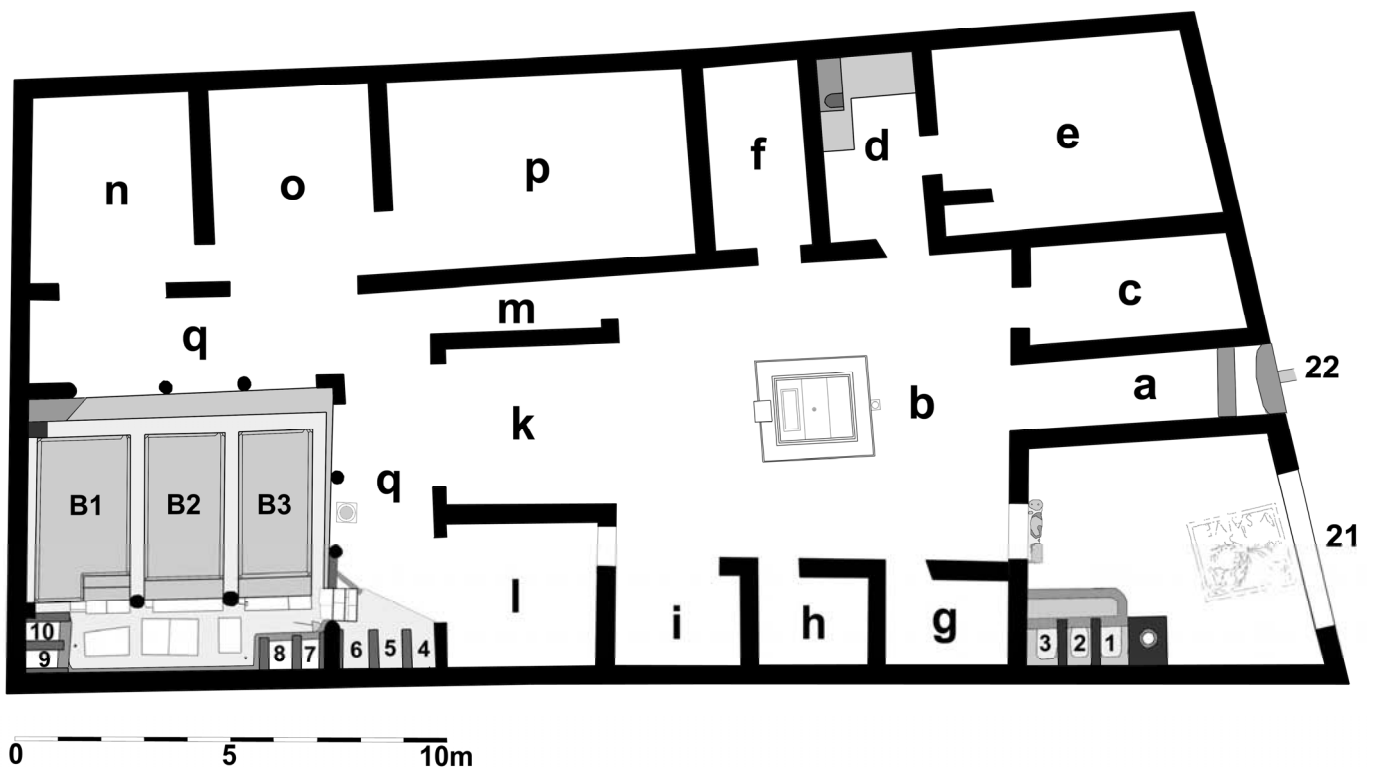


Fig. 15. Pompeii VI 14, 21.22, Plan.

area in the peristyle. The design, history and use of this house has recently been discussed elsewhere⁴. The *fullonica* deserved separate attention. There were two places where intervention was necessary. In the peristyle, the discharge system of the rinsing complex was hidden under modern debris and its organization was unclear. Further, the excavation reports mentioned a lot of features related to the fullery in the floor of shop VI 14, 21, but these had equally become invisible.

Discharge system

The discharge system of the workshop consisted of two branches. One narrow gutter ran east of the rinsing complex and transported the wastewater from the fulling stalls. Originally, it was used only for the waste from the four stalls on the podium south of the rinsing complex. Later, when the fullery was extended with three new stalls against the south wall of the portico (q), a side branch was added for the wastewater of this area. The second branch, which was much wider than the first, ran north of the rinsing complex and transported the water from the rinsing basins, each of which had a drain connected to it (Fig. 16).



Fig. 16. Pompeii VI 14, 21-22, peristyle Q: collection channel for water from rinsing basins.

While these two features were already discernible, they were partially filled up with modern debris and no entrance to a drain was visible. Hence, it was unknown how the wastewater was transported to the street. As there were no traces of a breach in the floors between the peristyle and the street, which all antedate the construction of the *fullonica*, it seemed probable that the *fullonica* made use of an existing discharge system, possibly that of the cistern situated in the eastern portico of the peristyle. Cisterns necessarily have some kind of discharge that prevent them from overflowing in periods of excess rainfall. A clear indication for the existence of such a discharge system was found in the *atrium*, in the small hole directly east of the *impluvium*, where is visible how the drain from the *impluvium* merges into a canal coming from the back part of the house.

To find out where the entrance to the drain was situated, the two branches of the discharge system were emptied to the bottom and the entrance to the drain was found in the north-east corner of the area, precisely at the point where the two branches merged (Fig. 17). The drain was made of two *imbrices* placed on top of one another and was situated underneath the southern part of the L-shaped *opus latericium* pier that formed the corner of the peristyle. Since this pier is likely to antedate the construction of the *fullonica* and the entrance to the drain antedates the pier, it must indeed be related to a preexisting water system. Probably, it originally indeed had a role in the processing of rainwater and either was connected to the cistern or, if the cistern had a separate inlet at a lower level, it functioned as an overflow for superfluous rainwater. In any case, after the construction of the *fullonica*, the connection with the cistern was closed off and the



Fig. 17. Pompeii VI 14, 21-22, peristyle Q: entrance to underground drainage channel.

⁴ FLOHR 2005.

wastewater ran directly through the drain towards the *impluvium* and to the street. Apparently, the capacity of the extant drain was enough. Only between the *impluvium*, which got a fountain and thus produced a continuous flow of water, and the street it was necessary to dig a new, larger drain, as is clearly visible in the floor of *fauces a*. The cistern remained in use and was fed by water collected at the gutter on the level of the peristyle roof. It was transported to the cistern through a system of lead pipes.⁵ Thus, there were two separate water systems in the same part of the house. The discovered entrance to the drain in the corner of the peristyle at present is completely open, but it is possible that there used to be some kind of protection, maybe in the form of a grating such as in VI 15, 3⁶: traces of lead were found fixed in the bottom directly next to the entrance, but these can also be related to an object filtering the wastewater flowing from the eastern branch of the discharge system.

Taberna VI 14, 21

In this *taberna*, which used to be independent from the rest of the house, large parts of the floor were cleaned to get a better understanding of the history and functioning of the shop. The focus was on three issues: the connection with the *atrium*, the treading stalls and the area in front of them and the mosaic in front of the entrance, which had been described by the excavators but never properly published. We also attempted to find traces of the depression for the fulling press, which excavators situated along the north wall, but this area turned out to be too heavily disturbed.

Connection with the atrium

To surmount the difference in height between the shop and the *atrium*, a step was built in front of the door between the two rooms (Fig. 18). This step consisted of three reused basalt blocks placed directly on top of the floor of the room. Between the step and the door, it is possible to see traces of the plaster that covered the west wall before the door was made. The step probably was not covered by any form of plaster: no traces of it remain and the top layer of the new plaster covering on the wall, which is contemporary to the step, makes direct contact with the stones of which the step was made.



Fig. 18. Pompeii VI 14, 21-22: step in front of the door between shop 21 and atrium B.



Fig. 19. Pompeii VI 14, 21-22, shop 21: W wall with remains of rim in front of the set of fulling stalls.

Treading stalls

The three treading stalls along the south wall have suffered from a fallacious restoration carried out in the twentieth century, when a wall was built that closed off the openings in front of them. Several old pictures documented the situation before this happened. Each of the stalls had a high rim in its entrance and the area in front of them was surrounded by a lower rim that kept the rest of the workshop free from dirt. Whereas the rim in the entrances was overbuilt by the modern wall, the one surrounding the area in front of the stalls could be traced back (Fig. 19). This rim was made of rubblework covered by waterproof plaster. While little was left of the rim itself, it had left enough traces that allowed us to establish its course, running parallel to the stalls, but curving 90° southward in front of the easternmost stall and ending against the high rim in its entrance. This made it hard to reach the vessel in the platform east of the stalls without putting at least one foot on top of the rim or within the area it surrounded.

The rim plays an important role in the relative chronology of the house. It was placed directly on top of the *opus signinum* floor of the shop and belonged to a later phase in its history: some of the white *tesserae* randomly set into this floor could be found in places that had been covered by the rim. On the other hand, the rim was older than the youngest plaster on the west wall of the room, which suggests that the rim, and as a consequence the set of fulling

⁵ FLOHR 2005, 57.

⁶ FLOHR in press.

stalls, antedate the connection between the shop and the atrium, which is contemporary to the construction of the *fullonica* in the peristyle. Thus, the evidence suggests that the treading stalls in shop VI 14, 21 are older than the fullery in the back of the house and already existed before the house was destroyed. This makes it tempting to see the latter as an extension of the former, which in turn implies that there was at least some continuity in the occupancy of the house after it collapsed.

Floor

The floor of the shop is well preserved in large parts of the room, especially in the southern half. This part was completely cleaned and revealed two interesting features: the remains of some kind of installation and a figurative mosaic. The installation was situated east of the fulling stalls (Fig. 20). Its remains consist of two pieces of iron fixed in the *opus signinum* floor, at a distance of about 50 cm from the south wall. As there are no traces of disturbance to the floor, it is likely that the pieces belong to an ancient installation and not to some modern notice board. To what kind of object the pieces were connected is unknown, but it must be remarked that they may correspond to 6 small beam holes in the south wall that are all situated between the pieces of iron and the southeast corner of the room.



Fig. 20. Pompeii VI 14, 21-22, shop 21: pieces of iron fixed in the floor; remains of unidentifiable work installation.

Together, these may have formed some kind of rack over which clothes could be hung.

The mosaic was situated in front of the entrance and measured 155cm x 175cm (Figs. 21-22). It was made of



Fig. 21. Pompeii VI 14, 21-22, shop 21: mosaic of white tesserae in front of the entrance.

white *tesserae* pressed into the *cocciopesto* floor and it consisted of a set of iconographic symbols surrounded by a double rectangular frame. While short descriptions of the mosaic exist in late 19th century publications⁷ and in the CIL (X, 873), no scholar has discussed it more thoroughly and, except for a rather vague picture in Pernice's work on Hellenistic mosaics (Pernice 1938, 79), no photographic documentation has ever been published. There also was no drawing. The foremost half of the mosaic, directly behind the threshold, is occupied by an ensemble of two *cornucopiae* around a *caduceus*. This motif is known from several other contexts. A mosaic from the Casa delle Vestali (VI 1, 7.25), recently dated to the Augustan period, shows a polychrome version of it⁸. The combination of two *cornucopiae* and a *caduceus* also is a common motif on coins from the late republic onwards. Coins with these motifs have been minted by Marc Anthony (43 B.C.; RRC, Marcus Antonius 521; Cohen 66), Augustus (Cohen 219), Tiberius (RIC 1, Tiberius 28) and Claudius (Cohen, p. 265). Compared to these coins, the ensemble in the mosaic from VI 14, 21, remarkably, appears to have been depicted upside down: normally, the wider end of the *cornucopiae* and the top of the *caduceus* formed the top of the scene. Directly behind the *cornucopiae*, over the entire width of the mosaic, some kind of branch is depicted. It is slightly curved in upward direction and has short side branches or leaves on both sides that lie close to the main branch. The iconography is similar to that of palm branches on coins, which often, though not always, are depicted with a similar curve (e.g. RIC 1, Augustus, 145 [17 B.C.]). Behind the palm branch is a wreath made of small twigs held together by strings tied in a bow. The twigs have many short side branches on both sides that grow away from the main twig and end in triangles of *tesserae* that maybe represent buds. It is not clear what plant species is depicted. Laurel and olive, of which the leaves grow directly from branch, seem improbable. Neither is the other common option, oak, likely, as Roman depictions of oak wreaths, which were symbol for outstanding citizenship, usually are dominated by the leaves and not by the branches of the oak twigs. However, the symbol of the wreath in itself is powerful enough to be independent of plant species. Like the other elements of the mosaic mentioned thus far, wreaths often appear on coins. Next to the wreath, in the upper left corner of the mosaic, two winged phalluses are depicted: a large one in erect state and below that a smaller one in a normal state. Finally, along the right side of the mosaic was the word SALVE (CIL X, 873), with its letters laid directly next to the border of the mosaic and oriented towards the north wall of the room. The mosaic is unique and there are no close parallels, neither in Pompeii, nor elsewhere. This makes interpretation hard, but it may be argued that the symbols depicted all are related to successful profit-making: the *cornucopiae* with the *caduceus*, the palm branch and the wreath all make regular appearances on coins and depictions of phalluses are common in Pompeian workshops, for example above the ovens of bakeries. They may be seen as an apotropaic symbol of fertility protecting the shop's good fortune. Thus, while the mosaic does not tell one clear story, it makes eclectic use of an iconography hinting at commercial success.

Taberna VII 2, 41

This small unit consists of a shop, a vaulted back room and a large storage area underneath room x in house VII 2, 20 (Fig. 23). A narrow door in the north wall of the shop gave access to a narrow room that, according to some, was a staircase that connected the shop to the peristyle area of this large house, but according to Fiorelli contained a latrine⁹. No traces of stairs are visible nowadays. In the northeast corner of the shop are the remains of another staircase that gave access to an upper floor. Fiorelli¹⁰ interpreted the shop as a *cella vinaria*, but Della Corte¹¹ and Moeller¹² interpreted it as a *fullonica*, because they saw a fulling installation in the southwest corner of the shop. As this installation gradually disappeared under sand, debris and vegetation in the course of the twentieth century, later

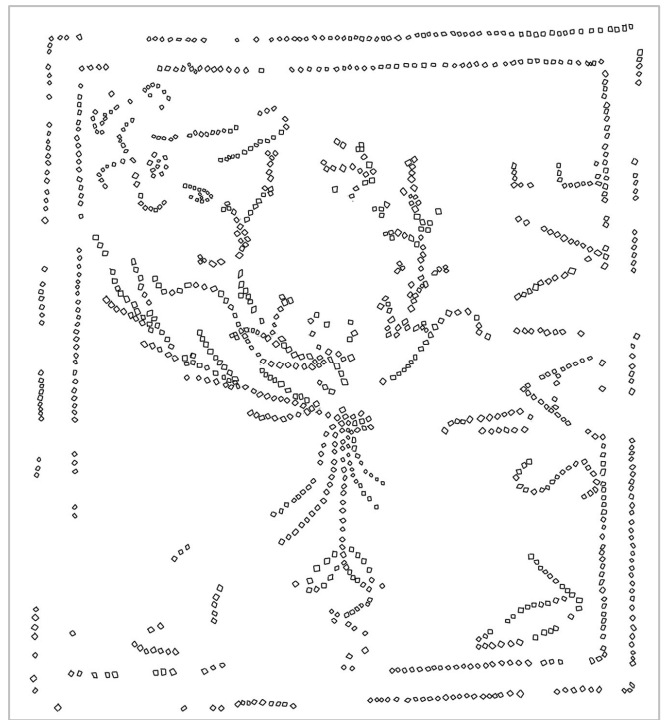


Fig. 22. Pompeii VI 14, 21-22, shop 21: mosaic. (drawing: C.W. Verburg, M. Flohr).

⁷ PAGANO and ANSIELLO 1876: 171; VIOLA 1879: 69.

⁸ BRETON 1855: 1; JONES and ROBINSON 2007: fig. 25.10.

⁹ FIORELLI 1875: 196.

¹⁰ FIORELLI 1875: 196.

¹¹ DELLA CORTE 1954: 178.

¹² MOELLER 1976: 51.

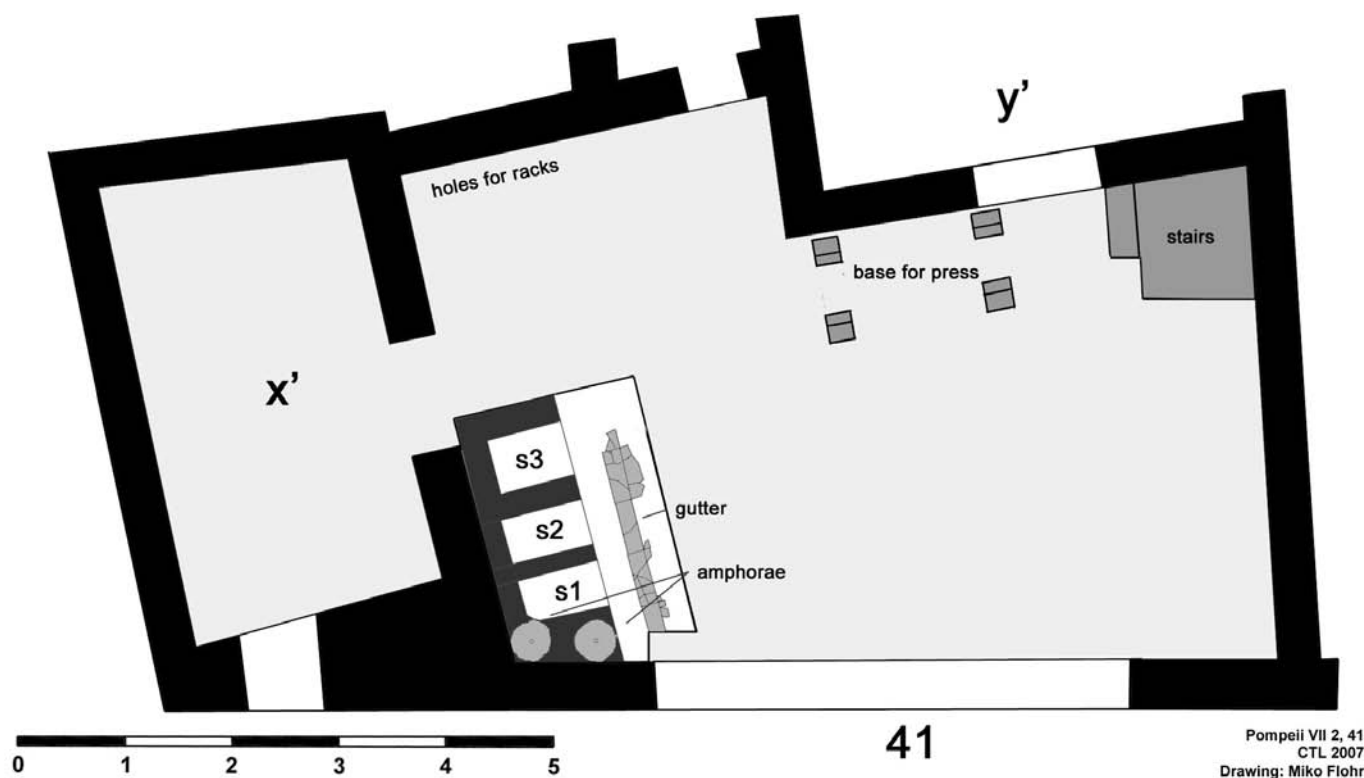


Fig. 23. Pompeii VII 2, 41, Plan.

scholars began to doubt their identification¹³. However, surface cleaning in this part of the shop revealed that Della Corte and Moeller were right: there was a row of three fulling stalls (S1-S3) along the west wall (Fig. 24). In the southwest corner was a *podium* that contained two immured amphorae (A1-A2), of which the bottoms have been preserved *in situ* (Fig. 25). In front of the stalls was a gutter. This ensemble includes all the typical elements of the small Pompeian *fullonicae*: stalls, storage-vessels and a provision to separate the wet area with the fulling stalls from the dry parts of the workshop.

The stalls are slightly below average in size. S1 and S2 probably must be seen as 2½'R deep and 1½'R wide, whereas S3, which has thicker walls, had an internal depth of 2¼'R and a width of about 1¼'R (the dimensions were: S1: W: 42cm, D: 73cm; S2: W: 43cm; D: 74cm; S3: W: 50cm; D: 64cm). The walls between and behind the stalls used to be covered with waterproof plaster and there were beds of *opus signinum* surrounding the fulling tubs, but little of these remains nowadays. Only in the southwestern part of S1, traces of the embedding of the tub could be discerned. They consisted of a layer of fine plaster over a coarse bed in which pottery sherds had been placed. A similar bed was found in *fullonica* I 4, 7¹⁴. There might have been a rim in the entrances of the stalls, but little of it remains. The position and layout of the *podium* with the two amphorae is remarkable. It is situated in the corner of the room, so that only the worker in S1 could take chemicals from the amphorae without having to leave his fulling stall. Further, while amphora A2 was placed in front of the *podium* and easily reachable for anyone approaching, amphora A1 is situated against the back wall and could only be reached by leaning over or stepping into S1. Remarkably, there is about 20cm of empty space between the amphorae, so it would have been possible to give the amphora a more accessible position. Possibly, the space between the amphorae was left free so that the fuller had a place to put his right hand. In any case, the organization of the three stalls meant that the fuller working in S1 had a privileged position as he was not only the only one having direct access to the amphorae but also could control the access of the other workers.

The gutter in front of the fulling installation was made of reused roof tiles. These were cut into pieces of 20x45cm, which were pressed into a bed of mortar with their flat sides up. The tiles were placed in two rows next to each with their long side parallel to the west wall. Both rows were slightly sloping towards the middle of the gutter. Of the western row, four tiles and part of a fifth has been preserved, but the eastern row is almost completely gone, except for some fragments of tiles. The southernmost part of the gutter, near the door of the shop, could not be traced because of the concrete foundations for the modern fence. However, a terracotta pipe visible in the border of the sidewalk, precisely in front of the gutter, suggests that wastewater could be disposed of through a small drain.

¹³ ESCHBACH 1993.

¹⁴ FLOHR in press.

Besides the installations in the south-west corner of the shop, traces of two other installations are discernible. One of these was in the northwest corner of the shop. All that remains are six small circular beam holes in the north wall at a height of 170cm. The holes are 30cm from each other and are too small to have carried a stable upper floor, and similar to those in the south wall of shop VI 14, 21, discussed above. There seems to have been a corresponding hole in the west wall, just next to the door towards the back room. The hole is in a slightly lower position, so that the beams fixed in the north wall rested upon the beam fixed in the west wall. Together, the beams formed a kind of rack that may have been used to spread out washed clothes.

The other installation stood in the east part of the shop along the north wall (Fig. 26). Its existence is indicated by four blocks of lava stone, which probably formed its foundation. Three of the blocks were similar in size and shape. They were rectangular (23-24cm x 24.5-28cm), with their longer sides parallel to the north wall. Their inner sides had been slightly cut away so that the installation could be fixed between them. The southwest block is smaller and seems slightly out of context. Two shallow holes in the north wall are possibly related to these four blocks.

These holes are about 2.70m above the floor, below the ceiling, and they may have been connected to the upper part of the installation, so that it stood stable. The installation had a width of 6 RF and a depth of 3 RF (measured dimensions: width 180cm, depth 91cm). These dimensions and the care taken in giving the installation a stable and fixed position may suggest that it was a fulling press. In those workshops where actual remains of a press were found, such as I 6, 7 and VI 14, 21.22, excavators also noted that these remains were securely fixed in the wall or in the floor.

Summary of results

The second season of the Cleaning the Laundries project has shed light on the hidden and forgotten remains of three Pompeian fulling workshops. Removing sand and debris, it was possible to confirm the uncertain identification of *fullonica* VII 2, 41 and to relate the fulling stalls to the other traces of installations in the *taberna*, so that a fairly complete picture can be sketched about the workshop's spatial organization. Moreover, the discharge system, which transported wastewater from the workshop underneath the pavement to the street, shows once more how much care was taken to organize waste disposal even in smaller fulling workshops. In house VI 8, 20-21.2, it was possible to completely reconstruct the drainage system between the rinsing complex and the street. Moreover, the rediscovery of the seventh fulling stall next to basin B1 sheds completely new light on the functioning of the work area, which was cut into two separate parts, and on the spatial organization of the production process, including the importance of a second type of fulling stalls half way through the rinsing complex. In house VI 14, 21-22, it could be shown how, when the *fullonica* was constructed, intelligent use was made of an extant discharge system to diminish



Fig. 24. Pompeii VII 2, 41, shop: fulling stalls, overview with drainage channel.



Fig. 25. Pompeii VII 2, 41, shop: fulling stalls, SW corner with remains of two amphorae.

the necessary amount of interventions in the house. Further, in shop VI 14, 21, important indications were found for the relative chronology of the house, which raise the suspicion that the fulling stalls in the shop are older than the *fullonica* in the peristyle. Moreover, the almost complete rediscovery of the (as yet) unique mosaic in the entrance to the *taberna*, which antedated all traces related to fulling, is of relevance not only for the stylistic history of Roman mosaics, but also for our understanding of the iconography related to trade and commerce in *tabernae*. Like the result of the previous fieldwork season, this season's results show the wealth of relevant data hidden underneath modern sediments at Pompeii, especially in buildings that had more everyday destinations and the urgent need to collect these data before they will have definitively gone lost unrecorded.



Fig. 26. Pompeii VII 2, 41, shop: blocks of lava stone forming the basis of an installation.

BIBLIOGRAPHY

- ALLISON P.M., 2006, *The Insula of the Menander at Pompeii, III. The finds*, Oxford.
- BRETON E., 1855, *Pompeia*, Paris.
- DELLA CORTE M., 1954, *Case ed Abitanti di Pompei*, Roma.
- ESCHEBACH L., MÜLLER-TROLLIUS J., 1993, *Gebäudeverzeichnis und Stadtplan der Antiken Stadt Pompeji*, Köln.
- FIORELLI G., 1875, *Descrizione di Pompei*, Napoli.
- FLOHR M., 2005, "Keeping up appearances. Design History and Use of Domus VI 14, 21-22", in *Rivista di Studi Pompeiani* 16: 37-63.
- FLOHR M., in press, "Cleaning the Laundries", in *Rivista di Studi Pompeiani* 18.
- FOX G.E., 1905, "Notes on some probable traces of Roman Fulling in Britain", in *Archaeologia* LIX: 207-232.
- JONES R., ROBINSON D., 2007, "Intensification, heterogeneity and power in the development of insula VI.1", in J. DOBBINS AND P. FOSS (eds.), *The World of Pompeii*, London.
- MOELLER W.O., 1976, *The Wool Trade of Ancient Pompeii*, Leiden.
- PAGANO N. AND ANSIELLO A., 1876, "Relazione ufficiale dei lavori eseguiti da Gennajo a Giugno 1875", in *Giornale dei Scavi di Pompei* 3: 166-176.
- PERNICE E., 1938, *Die Hellenistische Kunst in Pompeji, 6, Pavimente und Figürliche Mosaiken*, Berlin.
- PIETROGRANDE A L., 1976, *Le Fulloniche (Scavi di Ostia VIII)*, Roma.
- RIVET L., 2000, *Atlas Topographique des ville de Gaule Méridionale. 2. Fréjus*, Montpellier.
- VIOLA L., 1879, "Gli scavi di Pompei dal 1873 al 1878", in M. RUGGIERO (ed.), *Pompei e la regione sotterrata dal Vesuvio*, Napoli.

Miko Flohr
Radboud University Nijmegen
m.flohr@let.ru.nl