

Water, well-being and social complexity in *insula* V 1

A Pompeian city block revisited

Abstract

Swedish archaeologists have been working in Pompeii since 2000. Our fieldwork has consisted mainly of the study of standing walls and cleared floor levels in a city block unearthed in the 19th century and of the production of a comprehensive documentation, presented in an open access publication: www.pompeijiprojektet.se/insula.php. The perspective of the present paper is the *insula* as a whole. Its main study objects are features of recurrent nature that in varying form and frequency are found in many of the separate houses and other units that constitute this *insula*: for example, the divergent materials used for the rubble masonry in the first phase of urbanisation, structures used for water management such as water supply and drains, possible earthquake damage and resulting repairs, preferences for where kitchens and sanitary installations are placed, markers indicating property borders and dependencies such as pavement curbing, courses of water inlets and drains, shops communicating with the houses through rear doorways, and the existence and extent of second-storey flats. The features studied are contextualised in their natural and urban environment. In general, historical events enter the discussion when linked to the chronological development of the infrastructures, communal and private, which this study highlights as being of decisive importance for understanding the development of the organisation of real estate and social structures in this *insula* and on a wider stage as well.

Introduction*

The aim of the following presentation is to approach questions concerning tradition, diversity, continuity and change in Pompeian living conditions by making use of the perspective arrived at through the comprehensive study of a whole city block. The author's ambition is to relate evidence recovered during the documentation of the ruins of *insula* V 1, studied by the Swedish Pompeii Project from

its inception in 2000,¹ to the larger environmental, institutional, social and civic scene. *Insula* V 1 has great potential for providing relevant material for studies involving ancient life styles and social conditions. It was chosen as a study object for the Swedish Pompeii Project because of the variety of its components,² ranging from grand residences to more modest ones, and to larger commercial facilities and

*I would like to thank my collaborators in the Swedish Pompeii Project and other colleagues who have read and commented on different drafts of this paper, thereby making it possible both to modify its contents and to add new information and observations, with special thanks to Henrik Boman and Hans Thorwid for help with making photographs and charts, Carole Gillis for correcting my language and giving much valuable advice, Richard Olsson for discussions about water. I am also indebted to the generosity of Dr J.-P. Brun, director of the Centre Jean Bérard, who offered both his skill and the balloon that provided us with a full air-photographic documentation of *insula* V 1, of invaluable importance for checking correspondences on opposite sides of high walls and for returning to parts of the city block and its neighbourhood on the desktop, far from Pompeii. The site pompeiipictures.com has also proven a most precious tool for contextualisation. The project owes much gratitude to the important financial support offered by Swedish research foundations: the Knut and Alice Wallenberg Foundation, the Bank of Sweden Tercentenary Foundation, the Torsten and Ragnar Söderberg Foundation, the Torsten and Ingrid Gihl Foundation bequested the Royal Swedish Academy of Letters, History and Antiquities, the Fondazione Famiglia Rausing, the Gunvor and Josef Anér Foundation, the Harald Hagendahl Foundation, the Henrik Granholm Foundation, the Association of Friends of the Swedish Institute in Rome and finally by the Swedish Institute in Rome itself. The support and guidance offered to us by the staff of the Soprintendenza, headed by Professor Pier Giovanni Guzzo and Dr Antonio d'Ambrosio, have been decisive for the outcome of our work, as have the services of the personnel of the Direzione degli Scavi, on site. I would like to especially thank the anonymous reviewer who read my paper so thoroughly and gave so many valuable comments.

¹ For more material, including a systematic photographic documentation, see www.pompeijiprojektet.se/insula.php.

² Dr Margareta Staub Gierow, the only experienced Pompeianist in the Swedish team when the work was initiated, made the choice in discussion with Prof. Guzzo.

street-front shops, *tabernae*,³ of various sizes. The paper concentrates on selected evidence particularly suited to a comparative approach because it appears often in differently defined contexts (shops, houses, properties) all over the *insula*. Comprehensive analyses of individual houses will appear in forthcoming monographs and articles by other members of the Swedish Pompeii Project.

As in many *insulae* in Pompeii, the volcanic debris that covered *insula* V 1 was hastily removed in the 19th century for the purpose of exposing the remains rather than undertaking detailed documentation or study.⁴ The aim of the fieldwork in *insula* V 1 from its inception in 2000 is to remedy this situation and to use the results as a platform for wider contextualisation. The fieldwork has been restricted mainly to standing structures, walls and cleared floors, while any actual excavation has been non-destructive, concentrating only on areas without built remains today: it is considered that an understanding of the existing structures ought to precede irreversible methods of investigation.⁵

At present, the documentation of the north and central sections of the *insula* is completed. In the south part, from a demarcation line constituted by the south boundary of the Casa di Caecilius Iucundus, work is still in progress. Work on the premises of the SW corner, *domus* V 1,3 and the surrounding street-front shops, has just started. Still, this area has already yielded important evidence on the diversified use made of the new communal resource, the aqueduct water, as well as on the social conditions that reigned here: i.e., on the dependent status of the shops. Although new information will assuredly be added as the study proceeds, the results obtained so far are sufficient to allow the following, first overview assessment.

The wealth and the repetitiveness of information are two main characteristics of Pompeian archaeology, the unevenness of the documentation, its main problem. The revisiting of *insula* V 1 is thus meant as a contribution towards remedying this situation in offering a reliable qualitative documentation with quantitative analysis. The evidence

that will be presented and analysed in this paper was chosen because of its potential to yield meaningful results when seen in contrastive comparison or quantitative contextualisation, and subsequently, to serve as a base for the construction of hypotheses that may open up larger perspectives or adjust focuses for the study in progress of the individual houses. Among the patterns that emerge, some are factual, while others lead to hypotheses needing more substance and information (to be got within the *insula* or from the wider frame beyond) to support or reject them.

The paper deals primarily with evidence relating to transitions from one kind of space to another, or occurring frequently in many different spaces. It lingers with preference on the façades, the pavements, the front shops; boundaries between properties; and various built features passing boundaries (the in-betweens of properties, borders between inside and outside) and/or assuring the convenience of daily life such as water inlets, drainage pipes, cisterns, fountains, furnaces, latrines, cesspits.⁶ Extending over a large but contextually integral area, not merely including but even promoting detailed examination of the more simple living spaces, undecorated houses, service areas and front shops (often not thoroughly excavated during the original, 19th-century work and also set aside in more recent fieldwork, which traditionally has focused more on big houses and decorations), the study has provided important new evidence, not least concerning the interrelation between the small units and their influential and affluent neighbours.

The choice to divide and present the results of this documentation of *insula* V 1 into three chronological windows is largely conventional. The periods chosen are as follows: the Samnite city-state, the Roman city “undisturbed” and, finally, the last “disturbed” days of Pompeii (that is, the last sixteen years of city life, the aftermath of the earthquake of AD 62/63).⁷ It may rightly be argued that the decision to present one hundred and forty years of Roman city life as one and the same phase is to oversimplify, or again that most of the evidence discussed in this division belongs mainly to the Imperial period. But as long as no fundamental new category appears in the evidence studied to justify further divisions—wall decorations being largely exempt from the following discussion, as is the Imperial

³ The term *taberna* is henceforth used to denote front shops without regard to their function: tavern, shop, workshop. This is a solution of convenience, as the function of several of these premises remains unknown.

⁴ Excavated mainly in the 1830s and 1870s. An early sondage reached the Casa degli Epigrammi greci already in 1748. For further information on the history of the original excavation and the bibliography, see www.pompejiprojektet.se/insula.php.

⁵ For the areas excavated by the Swedish team up to 2006, see *Convegno* 2008; a plan indicating the areas: Leander Touati 2008, fig. 2; on the excavations of the peristyle garden of the Casa degli Epigrammi greci, Staub Gierow 2008, on different points within V 1,23 and front shops V 1,24 and V 1,27, Karivieri & Forsell 2008, and in the *atrium* of V 1,15, Boman & Nilsson 2008.

⁶ The typological evidence of thresholds and the positioning of windows are studied elsewhere in their own right: Staub 2010; Boman forthcoming.

⁷ As the two ancient authorities referring to the earthquake, Seneca *NQ* 6.1.1–3; 6.1.10 and Tacitus *Ann* 15. 22, do not agree on the name of the year (of the consuls in office), there is a discussion concerning what date should be preferred, AD 62 or 63. For a recent discussion of the issue, see Wallace-Hadrill 2003 (opting for 63).

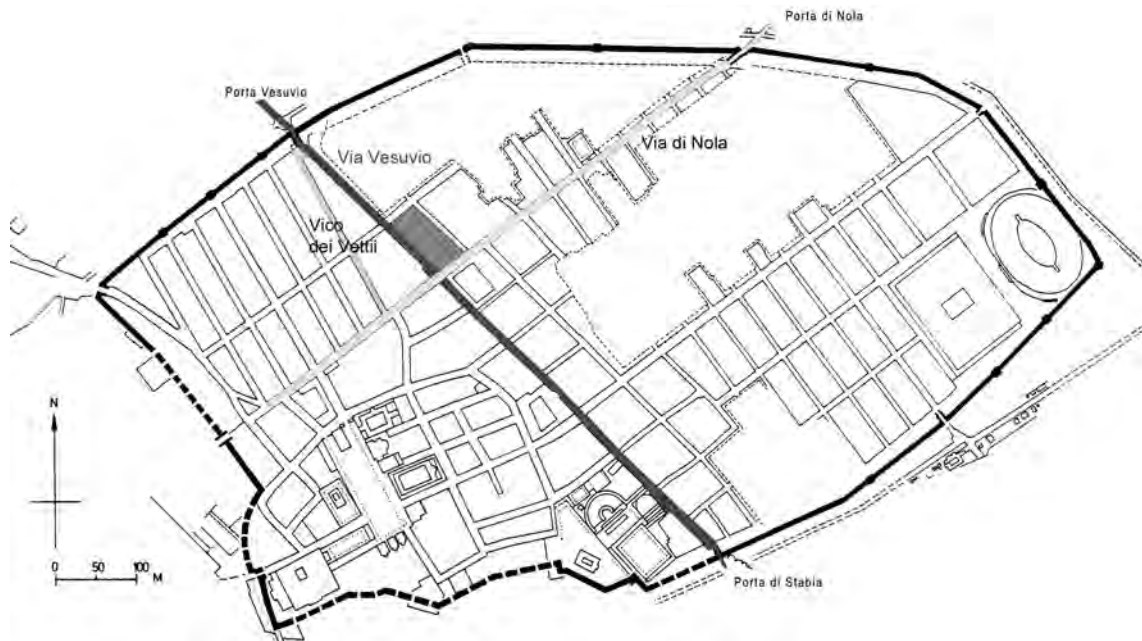


Fig. 1. Plan of Pompeii. *Insula* V 1 and principal thoroughfares highlighted. After Cooley 2003. By Henrik Boman.

public architecture—the use of more chronological subdivisions appears artificial and will not be attempted. In the last section of this paper, the social climate that may be interpreted from the architecture is investigated in terms of continuity and change. The situation in the Imperial period is compared and sometimes contrasted to an older, traditional order. But first, some words to familiarize the reader with this city block.

Some basics for *insula* V I

Insula V 1 is situated in the northern part of Pompeii at the intersection between two of the city's main arteries, Via di Nola running east-west, and Via Vesuvio, from north to south (Fig. 1). To the north of *insula* V 1 one elongated, unearthened city block covers all the ground up to the city wall. Vicolo delle Nozze d'Argento runs from Via Vesuvio as a division between this unexcavated part of the city and *insula* V 1. This street continues towards the east and forms northern division of one more city block. Once passed the entrance of the Casa delle Nozze d'Argento (V 2,i), one of the largest residences in the neighbourhood, the street disappears beneath *lapilli* and earth into the unexcavated part of Regio V. East of *insula* V 1 runs Vicolo di Caecilius Iucundus, a backstreet onto which only rear entrances open from *insula* V 1.

A first general observation emerging from the examination of the standing structures is that many of the property divisions (boundary walls) of *insula* V 1 preserve their original configuration (Fig. 2). This applies to the larger part of the Casa del Torello di Bronzo (V 1,7), henceforth referred to as the Casa del Torello,⁸ entered from Via di Nola. Note, however, that the rooms opening on the west side of the peristyle are later additions. They belong to a period when *domus* V 1,3 was annexed and the Casa del Torello developed into a double *atrium* house. Similarly, the neighbour to the north, entered from Via Vesuvio, the Casa di Caecilius Iucundus, named after the famous banker whose archive was found here during the excavations in 1875, is the result of the fusing of two houses, V 1,26 and V 1,23, designated here as the South and North Houses of Caecilius Iucundus.⁹ As in the earlier case, this fusion was not an equal

⁸ The house is named after a bronze statuette, functioning as a spout for the fountain of the *atrium*. Naples National Museum Inv. 4890; Guida Ruesch no. 826. It is sometimes alternatively named House of the Bull, the Young Bull, the Bronze Bull or Casa del Toro. Thomas Staub is preparing a full assessment of the building history of this house as part of a PhD work preliminary entitled *The house of the Bronze Bull (V 1,7) and use of water in Pompeian domestic architecture*. For a first report, see Staub 2008.

⁹ Arja Karivieri and Renée Forsell are in charge of the study of the Casa di Caecilius Iucundus. For preliminary reports, see Karivieri 2005; Karivieri & Forsell 2006/2007 and 2008.



Fig. 2. Insula V 1 in AD 79. The different houses highlighted. The northern part of the plan was made by Ezequiel Pinto Guillaume for the Swedish Pompeii Project, the southern part (south of the Casa di Caecilius Iucundus) adapted from the plans published in PPM and CTP (IILA, 72). By Henrik Boman.

one but an enlargement of one house to the detriment of the other. It allowed the addition of new reception rooms to the peristyle garden of the South House, built on space that earlier must have belonged to the northern neighbour. In spite of these changes the original house plans, dating back to the first phase of urbanisation of this *insula*, are still easily seen. Among the larger dwellings, only the Casa degli Epigrammi greci (V 1,11–12.18), entered from Vicolo delle Nozze d'Argento and Via Vesuvio, presents irregularities, which may result from more complex changes in property boundaries.¹⁰

¹⁰ Margareta Staub Gierow is in charge of the study of the Casa degli Epigrammi greci. For preliminary reports, see Staub Gierow 2005; *eadem* 2006/2007; *eadem* 2008.

The two establishments that occupy the NW corner of the *insula* also seem to have remained fairly true to an original system of land use, although they once may have constituted a single unit. Both functioned as commercial establishments in the late period of the city's life: an inn (V 1,13) and a bakery (V 1,14–16), respectively.

Only the SW corner of the *insula* was extensively rebuilt during the late days of Pompeii. It contains two small houses. The one entered from Via di Nola has the appearance of a conventional small *atrium* house (V 1,3), whereas the Casa di Tofolanus Valens (V 1,28), entered from Via Vesuvio, is a narrow suite of rooms situated parallel to the street and lacking an *atrium*. The extant *tabernae* in this part of the *insula* consist of several rooms and are thereby larger than most of their counterparts to the north.



Fig. 3. *Via di Nola looking northwest onto the south façade of insula V 1 (V 1,1–8). By Hans Thornwid.*

A review of the perimeter walls of *insula* V 1 reveals extensive portions of original masonry. Whereas the façades of the city block towards the south, east and north (Figs. 3–5) display unity in conception, mirroring the space occupied by each of the bigger houses behind them, the façade towards *Via Vesuvio* is more varied. In the following this variation is accredited to the growing commercial importance of this street. Along its northern course, old walls were torn down in order to produce new shop openings (Fig. 6). This change is best exemplified by openings V 1,14 and V 1,16, created when the front rooms of the small *atrium* house V 1,15 were changed into two street-front *tabernae*.¹¹

The SW corner of the *insula* with its set of large *tabernae*, homogeneous in appearance, is the only part that was extensively rebuilt in the last decades of Pompeii (Fig. 7, 39). In this respect it constitutes an enclave apart, extending from the *Casa di Tofellanus Valens* (V 1,28) on *Via di Vesuvio* to the *fauces* of the small *atrium* house, *domus* V 1,3, on *Via di Nola* (Fig. 2). The appearance of the original plots on which these two houses were built is one of the more complicated questions regarding original land use in this city block, as both houses may lay claim to the same rear space,¹² and as all standing structures in the area are late and yield few, if any, clues to its older configuration. The *Via di Nola* façade, however, speaks in favour of that higher importance was accredited *domus* V 1,3. This façade clearly indicates that the



Fig. 4. *Vicolo di Caecilius Lucundus looking north. The posticum of the Casa del Torello in the foreground. The façades display original rubble masonry. The dark lava incertum of the North House of Caecilius Lucundus is easily recognised in between the light masonry used for the façades of the South House and the Casa degli Epigrammi greci. By Arja Karivieri.*

¹¹ Boman & Nilsson 2006/2007a, 150.

¹² The solution to this riddle is as yet still on hold, awaiting results from fieldwork in progress.



Fig. 5a–c. North façade of insula V 1 onto Vicolo delle Nozze d'Argento: a. the western half of the façade. By Hans Thorwid; b. elevation drawing of the façade in full length. By Ezequiel Pinto Guillaume; c. full length of the façade. Note the gap in the otherwise continuous ashlar course of the Northwest Building, marking the position of a walled-up doorway. By Hans Thorwid.

front part of *domus* V 1,3 must have belonged to the sphere of the large neighbour, the Casa del Torello, from the beginning. Although the west jamb of the *fauces* of V 1,3 is rebuilt in late brick technique, the jamb on the opposite, east side, harmonises with façade towards east (Fig. 8), where the Casa del Torello and its lateral *tabernae* form without question the stateliest façade of this *insula*. Typical of monumental Samnite work of the second century BC, it is made of finely cut, tuff ashlars assembled into high piers (Fig. 3). Most are still preserved almost to their full original height.

Urbanisation—Hellenistic Pompeii and beyond

Sequence

Dense urban texture was a comparatively late development in *insula* V 1. No clearly diagnostic finds that antedate the second century can be reported from the city levels

investigated so far. The standing structures reveal that once the process had started, urban spread advanced sequentially from south to north.¹³ Step by step the process ultimately joined the two earliest *nuclei*, the Casa del Torello, furthest to the south, and the possibly older Northwest Building—referred to above in its late function as an inn (*caupona*)—in the north, into one urbanised whole. These two, earliest dwellings are characterised by early materials in wall constructions, *opus quadratum* and *opus africanum* for the lower courses of the Northwest Building, and well-cut tuff ashlars for the façade of the Casa del Torello (Figs. 3, 5b–c).

The unpretentious façade facing the east backstreet, Vicolo di Caecilius Iucundus (Fig. 4), is mostly untouched by ancient repairs even though the preserved elevation in many places reaches beyond the floor level of the second storey. The history revealed by this façade is that of the construction sequence of the four large dwellings of the

¹³ For a closer description and further illustrations, see Leander Touati 2008.



Fig. 6. Insula V 1 from the northwest and Via Vesuvio. Shop openings 13 (caupona), 14 and 16 (bakery) in the foreground. By Hans Thornwid.

insula.¹⁴ Different kinds of stone were used for each of these four houses. In two cases, that of the northeast corner of the Casa del Torello as well as that of the northeast corner of *domus* V 1, 23 (later to become the North House of Caecilius Iucundus), it is possible to follow the work of the masons around a property corner. In the case of the Casa del Torello the quoin is composed of bonded ashlar; in that of V 1,23 the characteristic dark lava stone *incertum* that constitutes its perimeter towards Vicolo di Caecilius Iucundus continues also in its westbound, north boundary wall. This means that the houses to be constructed next, *domus* V 1,26 (the South House of Caecilius Iucundus) after the Casa del Torello and the Casa degli Epigrammi greci after *domus* V 1,23, incorporated the already standing boundary wall of the southern neighbour. Thus, as mentioned above, urban growth in this city block proceeded from south to north.

¹⁴ Leander Touati 2008, 118–123.

The two houses (V 1,23 and V 1,26) later to become the double *atrium* house of Caecilius Iucundus were probably built contemporaneously but by different entrepreneurs. Albeit of different material, the rubble walls of these two properties are linked by means of a pillar consisting of ashlar, alternately appearing as headers and stretchers in the perimeter wall, thereby bonding the two properties.¹⁵ Similar study of the north perimeter of the *insula*, facing Vicolo delle Nozze d'Argento, clearly demonstrates the pre-existence of the Northwest Building (V 1,13) and the later addition of the Casa degli Epigrammi greci. Here expansion proceeded from west to east. The lava *incertum* perimeter wall of the Casa degli Epigrammi greci abuts the ashlar masonry that constitutes the NE quoin of the older building.

¹⁵ This pillar is composed of standing and lying blocks; the latter keying into the perimeter walls on both sides. For elevation drawing and photomontage of the street-front façade, navigate from www.pompejiprojektet.se/insula.php to Façade - Vicolo di Caecilius Iucundus.



Fig. 7. *Insula V 1 from southwest and Via Vesuvio. Taberna V 1,30 in the foreground. The archaeologist is standing in front of entrance 28 leading into the Casa di Tofelanus Valens. By Hans Thorvid.*



Fig. 8. *Entrance of domus V 1,3 and flanking workshops. Note that different masonry is used for the jambs and that both stand on the same kind of foundation. By Hans Thorvid.*

Henrik Boman and Monica Nilsson, working on the documentation of the northwest corner of the *insula*, believe that in the original land use of this area the narrow Northwest Building, V 1,13, was combined with a larger plot of non-constructed land south of it, later to house an independent *atrium* house V 1,14–16, (later still, changed into a bakery).¹⁶ There are indications of a walled-up doorway leading from the N front shop of the bakery towards

the narrow Northwest Building.¹⁷ It could be that the wide (later walled-up) doorway, still easily detected in the perimeter wall of the Northwest Building towards the Vicolo delle Nozze d'Argento (Fig. 5), admitted passage into an open space used for cultivation, pasture, storage or whatever. South of this hypothetical, early Northwest Property, the *atrium* area of the Casa degli Epigrammi greci presumably also remained undeveloped for some time, as is suggested

¹⁶ Boman 2008, 91.

¹⁷ Boman 2008-04-01, www.pompejiprojektet.se/insula.php, V 1,14–16 Bakery, Room 14i North wall.



Fig. 9. Via Vesuvio looking south. Note the water tower, first in line on Via Vesuvio, followed by the intersection with Vico Mercurio and Vicolo delle Nozze d'Argento. Insula V 1 to the left in the picture. By Hans Thorwid.

by the existence of a walled-up window that once opened towards this area from the interior of the northwest wing (V 1,20–21) of its southern neighbour (V 1,23).

It may be noted that the Northwest Property extended into the space actually occupied by the Casa degli Epigrammi greci. The north façade of the Northwest Building turns south with a bonded, *opus quadratum* quoin. During the excavations of the actual northwest room of the Casa degli Epigrammi greci, it was noted that this old boundary wall, originally part of the Northwest Building only (onto which the later masonry of the Casa degli Epigrammi greci abuts) continues south, beyond the limit of the narrow building itself. The wall (truncated) may still be detected in elevation because it is integrated into the northern and southern walls delimiting the elongated NW *triclinium* of the Casa degli Epigrammi greci (Fig. 2).¹⁸ Further south, the *opus africanum* partition between the two NW garden rooms of the Casa degli Epigrammi greci fits the same picture: as

a surviving remnant of the original east perimeter of the Northwest Property.¹⁹

The above observations lead to a hypothetical reconstruction of an original land use in which only the plots furthest north and south were exploited for building: the narrow house of the Northwest Property, presumably then of rustic character, and in the south of the *insula*, the Casa del Torello. Among structures still standing today, only the north walls of the Northwest Building as well as its SW corner made in *opus quadratum* and *opus africanum* may be dated earlier than the second century BC. That the construction of the Casa del Torello occurred sometimes in the second half of the second century BC is suggested by its First-Style decorations and the one well-preserved pilaster capital from the façade.²⁰ It was part of a grand scheme also involving the full row of *tabernae* facing Via di Nola. As Felix Pirson and Jens-Arne Dickmann have already put forth,²¹

¹⁸ www.pompejiprojektet.se/insula.php V 1,18 Casa degli Epigrammi greci, Room m (triclinium) - N wall; S wall.

¹⁹ www.pompejiprojektet.se/insula.php V 1,18 Casa degli Epigrammi greci, Room n - E wall. Staub Gierow 2006/2007, 109; 2008, 99.

²⁰ Further on this dating in the forthcoming dissertation by T. Staub.

²¹ Pirson 1999, 154–156; Dickmann 1999, 80f.



Fig. 10. Rain water running along *Via della Fortuna* towards the intersection with the *Via Vesuvio*/*Stabiana* draining artery (water bed in lower part of picture). By Hans Thornvid.

the big house and the *tabernae* share the same foundation of well-cut tuff blocks (Figs. 3, 8, 39) and may therefore be considered as one grand, coherent architectural initiative. It could be that the Casa del Torello was built on land used for older dwellings, but as yet this suggestion remains hypothetical. More and deeper excavations are required to permit a meaningful discussion on how the original plots were conceived, distributed and used.²²

Impetus

The reasons for the development of land use observed in *insula* V1 may be ascribed to natural conditions and to the position within the city's street network. There is little doubt that in the early period the *Via di Nola* was the more important of the two main streets that define the E and S sides of the city block. This is clearly evidenced by the ostentatious façade of the Casa del Torello and by the construction sequence advancing from south to north. The reasons for the position of the presumably older building in the NW corner must have been of a different order. It may have been chosen to avoid the negative influence of the surrounding streets, rather than—as in the Casa del Torello—to profit from the prestige accrued from its proximity to the neighbouring artery: it is placed on the highest point of the block

and was probably put there to avoid being flooded every time it rained. While *Via di Nola* has a comparatively level course, perpendicular to the slope of the hill in that area, *Via Vesuvio* runs steeply down the slope. This descent follows the path of a natural cleft, and in rainy weather functions as natural drain for the city (Fig. 10). Fed from the summit of the hillside and from the side streets this watercourse leads rainwater in a straight line through the town towards the south. The first, steep course of *Via Vesuvio* levels out just before the junction with *Vico di Mercurio*—*Vicolo delle Nozze d'Argento*, which corresponds to the northern extremity of *insula* V 1 where the old Northwest Building is situated (Figs. 7, 9). The unorthodox, narrow shape of the house was probably conditioned by the natural conditions of the ground it stands on. Although original floor levels have not been investigated, it may be conjectured that it stands on a narrow ridge that initially, as today, was higher than the neighbouring plot to the south of it and to the level of the *Vicolo delle Nozze d'Argento*.²³ The narrow design certainly differs greatly from the later houses. It may well be that as long as intramural land was plentiful and the potential house owners could choose where they wanted their houses built, the area lower down, directly south of the Northwest Building, was probably considered less desirable because of the inconvenience presented by the neighbouring street, which at times was transformed into a torrent (Fig. 10), and was thus not chosen.

The spectacular finds of Early Bronze Age strata inside the narrow Northwest Building and below *Vicolo delle Nozze d'Argento*, as well as further south in the peristyle of the Casa degli Epigrammi greci, imply that prehistoric settlers found the position to their liking,²⁴ quite possibly because of the ease it presented in collecting rainwater at the point where the steep course of the (intermittently existing) water bed levelled out. Apart from the inconvenience presented by the lack of stable water sources—*insula* V 1 is situated some 30 metres above the groundwater level—this area offered optimal conditions for prehistoric settlement.²⁵ Further, the high location on the hill spur is strategic in a double sense: it permitted a good view of the plain, the river mouth and the sea beneath and is close to the good farming land on the slopes of the volcano.

²² We have found no foundation for the diverging solutions for the design of the original plots, especially in the north and south west parts of the *insula* recently suggested by H. Geertman (2008, figs. 7.9, 7.11). For instance, the suggestion that the original plot now housing the Casa di Tofelanus Valens (V 1,28) once reached as far as to the peristyle area of the Casa del Torello cannot be corroborated. Arguments for the original extension of *domus* V 1,3 over the rear area that Geertman attributes to V 1,28, will be presented by T. Staub.

²³ The height of the standing walls make excavation risky, but further investigation of the lower levels of this house is an obvious desideratum for our future work.

²⁴ For the Bronze Age finds made in *insula* V 1, see Nilsson & Robinson 2005; Nilsson 2008; Robinson 2008.

²⁵ The finds from the Bronze Age levels indicate animal husbandry, agriculture and fishing. They include bones of sheep, goat, pig, bird and fish, seashells, barley grain, emmer wheat and possibly spelt wheat. Nilsson 2008, 84; Nilsson 2009.

Drainage difficulties as well as unreliable street viability may thus explain the relatively late date for intense urbanisation in the rest of the northern part of *insula* V 1. It is also worth noting that the Northwest Building never became a prestigious dwelling. It stood for some 250–300 years without major changes in plan.²⁶ It is not surprising that this part of *insula* V 1 presents the largest challenge in understanding the definition of the original plots.²⁷ The new urban dwellings were very different from the Northwest Building and its closest neighbours. They were large, extending in depth all the way through the *insula* when planned on a west-to-east axis and were more or less of equal depth towards the north, when entered from Via di Nola.

The new city profile created in *insula* V 1 resulted from a process of urbanisation that took place during a rather restricted period of time—seemingly no more than a generation, or two at the most. There is no absolute evidence for an exact dating but considering the stylistic date suggested by the one preserved figured capital from and the First-Style decorations belonging to the Casa del Torello²⁸ as well as the early materials and techniques witnessed in the Casa degli Epigrammi greci, last in date of the construction sequence, it seems safe to suggest that the second half of the second century saw the start of this process that ended sometime around the turn of the century. In *insula* V 1 there is thus nothing to support the idea that intramural land was used more intensely in order to accommodate an increasing population of refugees pouring in from the countryside or from fallen neighbouring towns during the Second Punic War, when Hannibal's presence was part of the Campanian experience. A more appropriate frame for the rapid creation of an urban landscape in *insula* V 1 should instead be sought in the positive economic conditions created by the pacification of the Hellenistic Mediterranean under Roman hegemony. Thus, in this part of the city, the main exterior impetus would be the aftermath of the Roman victory at Pydna, rather than the events leading to or resulting from the Battle of Cannae.

Focus on human well-being—Roman Pompeii

On living standards in general and Pompeian infrastructures in particular

It is natural that from its discovery, Pompeii, the most completely preserved Roman townscape, has held a prominent place in most assessments of the nature of Roman everyday city life and living standards. The numerous large and richly decorated houses have always impressed visitors and it comes as no surprise that even reputed scholars of social history such as Michael Rostovtzeff were sufficiently seduced by the remains to venture as far as to compare Roman living standards with those of his own contemporaries of 1926, “As regards comfort, beauty and hygiene, the cities of the Roman Empire [...] were not inferior to many a modern European and American town”.²⁹

Later scholarship has shown that the ostentatious face of Roman consumption, with its investment in architecture, urbanisation and monumentalisation, hides harsher realities. In spite of the impressive number of big and lavishly decorated *atrium*-peristyle houses, the apparent lack of “separate lower-class housing” in Pompeii indicates that ample domestic space—of the kind familiar to the 19th- or 20th-century bourgeois experience—was hardly a reality for most, if indeed any, of these city dwellers. Instead different forms of close living where the wealthy shared their living space with an important number of dependent family members, servants and slaves may be conjectured. Ethnographical comparisons and historical analogies have been used to suggest a demographic density of one inhabitant per ground-floor room,³⁰ thus suggesting that the concept of close living may also be appropriate for describing the spacious premises.

Close living logically augments the risk for contagious diseases, just as city- as opposed to country-life up to a period very close to the present. A less positive picture of the ancient condition emerges when relevant data, other than monuments, are put forth and quantified such as the

²⁶ Except of course that there may have been an east wing, which may have been lost to the Casa degli Epigrammi greci.

²⁷ Geertman 2007, fig. 7.9. On the problems involved in establishing the development of the Casa degli Epigrammi greci, see Staub Gierow 2006/2007.

²⁸ More on this in the forthcoming study by T. Staub on the Casa del Torello.

²⁹ This phrase is still quoted in the revised, 1957 edition of his *Economic and Social History of the Roman Empire*: Rostovtzeff 1957, 153. It should be noted that Rostovtzeff's first academic work was an exercise in Pompeianology, *Pompeii: In the Light of New Excavations*, written in St. Petersburg in 1892. Afterwards he studied Pompeii in a course organised by the German Archaeological Institute in Rome led by August Mau.

³⁰ Excluded are public circulation spaces, such as vestibules and *atria*, as well as storerooms and latrines. Another way of calculating is to relate the estimated population of Pompeii of AD 79 to the estimated total number of rooms. Wallace-Hadrill 1994, 100–101.

information about death furnished by epigraphy and osteology. These sources underline the presence of acute problems with infectious diseases, generally poor health and, naturally accompanying this situation, low life expectancy.³¹ Roman hygiene has also been questioned in recent scholarship. It has been argued that although hygiene was assuredly desired (overwhelmingly evidenced by numerous big public baths and latrines), it was little understood as shown, for example, by the imprudent initiative to prescribe use of the baths as a cure for infectious epidermis diseases.³² Examination of teeth and jaws from Pompeii has shown that oral hygiene was also very bad. All this, together with a society built upon the principle of social inequity sums up to explain why recent approaches to ancient city life draw attention to the “confusing images” of the Roman life style rather than to modern analogy.³³

In the following, different ways for approaching the question of living standards in *insula* V 1 will be presented and discussed. The understanding gained corroborates some of the pictures drawn above, but may also modify the rashest claims. Special emphasis will be put on the role of infrastructures, the communal ones securing water supply and viable roads but also the domestic ones—water pipes, conduits, drains, cistern mouths, cesspits and so forth—recurrent features of a kind particularly suited to shedding new light on the issue of well-being within the houses. Mapping Pompeian infrastructures has proven a rewarding task in *insula* V 1 and the resulting knowledge is particularly well suited for suggesting answers not only to questions concerning comfort and hygiene but also to start a discussion about the reaction of Pompeian civil society to communal investment since living standards involve more than just physical aspects. The concept of well-being also includes ideas about security and trust.

The Julio-Claudian era may appear as the best basis for a discussion on the “confusing images” of the Roman life-style. Peace and prosperity ruled in Roman Italy. Material

remains are plentiful. All over Pompeii many fine Third-Style decorations eloquently testify to the resources of the rich elite of the day. In *insula* V 1 fundamental changes occurred, most conspicuously the enlargements of the big dwellings and the shop openings towards Via Vesuvio rising in number and importance. But even in the rich archaeological context that is Pompeii, it is far from easy to establish exact dating of events such as the opening of a shop and even the enlargement of a dwelling. Our study of *insula* V 1 suggests that even though certain residents undoubtedly experienced qualitative changes in their life style for the better during this particular era, the prerequisites were established a couple of generations earlier, due to measures taken following the creation of the Sullan colony in 80 BC. It seems safe to assure that the standards that we primarily attribute to the Julio-Claudian era resulted from a slow but sure process that we are inclined to regard as a gradually growing familiarity with and faith in the new Roman identity that accompanied the ameliorations of everyday life brought with it. Therefore, the following inquiry into the qualities of Pompeian housing spans a longer period than just the Julio-Claudian. As it also seems safe to suggest that this process of change may partly have been oriented in new directions after the earthquake of AD 62/63, or at least was made manifest in an accelerated way due to the intensified, updated rebuilding requested after the calamity, the last sixteen years of life in *insula* V 1 merits separate consideration.

Communal investments

For the residents of *insula* V 1, the new Roman identity of their city that was created after 80 BC must have been experienced as particularly beneficial due to two major improvements in the communal infrastructures that it entailed in their neighbourhood. The first was the paving of Via Vesuvio, which, as we shall argue below, was carried out sometimes in the period between 80 and 44 BC. The second followed reasonably soon thereafter, when Pompeii connected to the new Serino aqueduct project, carried out in 27–20 BC.³⁴ As suggested by Christoph Ohlig, this important work of engineering may not have been a new, but rather a much improved infrastructure: when an older aqueduct, built to furnish water to the Sullan colony, had proved insufficient, it was replaced by the Augustan creation that from now on furnished a steady supply of water to the *castrum aquae* by the Vesuvian Gate.³⁵ One of the three lines

³¹ Quantified studies of this kind of material were not considered/did not exist in the days of Rostovtzeff. For this kind of work, see Scheidel 1999; *idem* 2001a; *idem* 2001b; Fox 2005. These studies suggest that life expectancy was low for both rich and poor. Infectious diseases were the big killer, spreading particularly rapidly in crowded urban contexts. Data on demography and life expectancy rely mainly on evidence from Roman Egypt (census) and North Africa (tombstones), see Scheidel 2001b and Scheidel 2007, 39 with further bibliography. For a short review of results of research concerning Roman health and disease with further bibliography, Sallares 2007, 34–37. For results obtained from the osteological investigation of human bones from Pompeii, Lazer 2009. For the bodies discovered in the harbour of Herculaneum, Capasso 1999; Bisel & Bisel 2002. For a general overview on health in ancient Herculaneum, Laurence 2005.

³² Jongman 2007, 593.

³³ Jongman 2007, 592–594.

³⁴ Ohlig 2001, 49–84.

³⁵ Note, however, the tone of scepticism expressed in Adam & Varène 2008, 48 and *passim*.

leading from the castellum transported the aqueduct water down Via Vesuvio/Via Stabiana. *Insula* V 1 and the neighbouring city block on the opposite side of the street, *insula* VI 14, were both situated very well in relation to it. Few other Pompeian city blocks may boast of so much—two public fountains and two pressure-regulating water towers (the first and second of the line) close by (Figs. 9, 11, 13).³⁶

Paving Via Vesuvio

The paving of the surrounding streets was undoubtedly a great event in the history of our city block. There is little doubt that Via di Nola was the most important artery of the neighbourhood. Its impressive south façade and the stately pavement (Fig. 3) in front of it, extending the full length of the *insula* (albeit much worn and repaired in front of the street-front establishments from V 1,4 towards the west, Fig. 39), give ample evidence of this, as does the fact that the partial paving of Vicolo di Caecilius Iucundus, from the *posticum* of the house toward the south and the junction with Via di Nola clearly indicates the intended direction of the traffic to and from this residence.³⁷ It is highly probable that the paving of Via di Nola preceded or was coeval with the construction of the Samnite façade of the Casa del Torello, to be dated sometime in the later half of the second century BC. The beautiful technique of the pavement curbing (Fig. 3) repeats itself in front of other famous Samnite dwellings, such as the Casa del Fauno, further west on the Via di Nola/Via della Fortuna artery.

Along Via Vesuvio, things were less bright. The street, easily converted into a swift flowing stream when it rained, must always have been an artery of unpredictable surface condition as well as viability. As long as it remained unpaved, driving and even walking along it must have been a somewhat hazardous undertaking at times. The fact that the slope levels out in front of the NW corner of *insula* V 1 (Figs. 7, 9) must have created additional problems both for dwellers and passers-by at this particular point. It comes as no surprise therefore when recent investigations in two different studies concur that Vico dei Vettii, crossing the slope

on the diagonal, was preferred as the main road from the Porta Vesuvio towards the Forum in the early days.³⁸

The fact that both properties that face the north side of our city block, the Northwest Building and the Casa degli Epigrammi greci, had wide openings towards Vicolo delle Nozze d'Argento would indicate that the vicolo was preferred to Via Vesuvio for traffic of importance in the early days. The entrances from the north subsequently diminished in importance: that of the Northwest Building was walled up, the other, leading into the Casa degli Epigrammi greci, was divided into two separate entrances (Fig. 5).³⁹ An ancillary result of the excavations conducted by the Swedish team in Vicolo delle Nozze d'Argento in search of Bronze Age remains was the discovery of an earlier street surface corresponding in position to the conjectured threshold level of the walled-up entrance of the Northwest Building. The fact that wheel ruts were detected in the packed earth surface of the older street level demonstrates that in this phase of its history, Vicolo delle Nozze d'Argento was unpaved.⁴⁰ By analogy, therefore, it may be conjectured that this was the state of Via Vesuvio, and that the change in favour of the entrances leading into the two northern houses of *insula* V 1 from the west may be understood as a result of paving Via Vesuvio.

That the period of time from the founding of the Sullan colony to the death of Caesar, 80–44 BC, is the span of time within which the paving of Via Vesuvio is suggested both by epigraphical and archaeological evidence. The lower, *ante quem*, date is offered by an inscription carved into the east pavement of Via Stabiana, close to where it crosses Via di Nola,⁴¹ that is, at the other side of the crossing, as seen from the *taberna* (V 1, 32-1) occupying the SW corner of our city block. The inscription reads EX - K - QUI, or ex Kalendis Quintilibus, from the first day of July. The name of this month, Quintilis, was changed to Iulius in 44 BC in order to honour the murdered Caesar. That the inscription could be interpreted as evidence for celebrating

³⁶ Only city block VI 14 has more water distribution installations in its immediate vicinity. This *insula* has all the same facilities as V 1 but has one more water tower, the one standing on the other side of Vico dei Vettii, close by its NW corner.

³⁷ The paving of Vicolo di Caecilius Iucundus runs from the north boundary of the double *atrium* house of Caecilius Iucundus. The façade of the Casa degli Epigrammi greci is abutted directly by the mud street. It is evident that the street was paved by the initiative of the owner of the Casa di Caecilius Iucundus.

³⁸ Poehler 2006, points out that Vico dei Vettii, in its original state in the Samnite, pre-colonial period, was the only two-way, north-south street of Regio VI. The investigation of Seiler *et al.* 2004 has pointed out that the houses of *insula* VI 16 initially had their main opening towards the *vico* but changed their orientation after the paving of Via Vesuvio.

³⁹ For more on the chronology of these alterations, see Boman & Nilsson forthcoming and Staub Gierow forthcoming. The more western of the two entrances into the Casa degli Epigrammi greci was intended for entering rooms of the second storey. The other one functioned as *posticum* for the Casa itself.

⁴⁰ Boman & Nilsson 2006/2007b, 162f.

⁴¹ In front of the corner shop, *taberna* IX 4,1. A second inscription with similar contents (K - Q) is to be found in Vicolo Storto, in front of *taberna* VII 2,28.

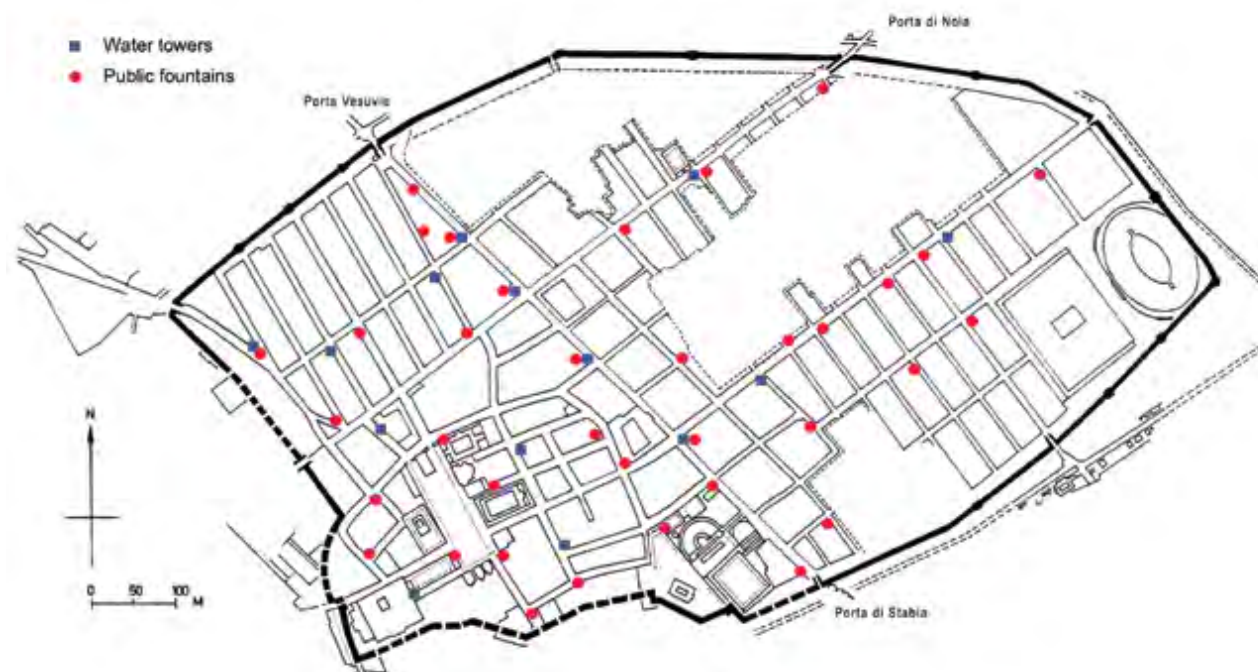


Fig. 11. Communal water installations. Plans adapted from Cooley 2003. By Henrik Boman.

(and dating) the paving of the street and the simultaneous laying of the pavement is a point made in 19th-century scholarship,⁴² but since rarely quoted.

The validity of the *post quem* limit is suggested by recent evidence from investigations carried out in Porta Vesuvio and its neighbourhood. The excavations of Florian Seiler and his team at the summit of Via Vesuvio and in the northern part of the neighbouring *insula* VI 16 indicate that the street was subject to alteration twice: first in connection with the foundation of the colony and again in the Augustan period. In a first phase the back walls of the houses of *insula* VI 16, which initially formed an irregular line towards Via Vesuvio, were straightened and the street itself was paved. In the Augustan period the street was widened and, furthermore, several houses changed the earlier orientation of their main entrances, which had opened onto Vico dei Vettii, to new ones, now opening in the opposite

direction onto Via Vesuvio. The commercial activity of the latter was also intensified, with new *tabernae* appearing.⁴³

The gradually intensified importance of Via Vesuvio as a commercial road may also be argued from evidence recovered in *insula* V 1. Most important was the conversion of what was once two large rooms opening towards the atrium in *domus* V 1,15 into shops (V 1,14.16) by removing the west walls (earlier façades).⁴⁴ There is no clear evidence, though, that this alteration can be dated within the earlier of the time slots established for the street improvements in Seiler's excavation further north. In their present state the two *tabernae* have openings framed by late brick masonry. Mau documented a now lost wall decoration on the south wall of shop V 1,14 (Fig. 12).⁴⁵ He presented it as a paragon of the Second Style and assumed that the decoration had been created for this room when it was still part of

⁴² Mau 1907, 228–229, following observations already presented in earlier scholarship: for example, Smith 1890.

⁴³ Seiler *et al.* 2004, 218, 224; Seiler suggests that a general updating of the main street arteries took place when the colony was created. Another example is the retracing of Via delle Tombe, involving the rash restructuring of the entrance to the Villa di Diomede.

⁴⁴ Both *taberna* openings still display a string of wall plaster caught in the pavement in front of their thresholds, witnessing that in an earlier phase the façades were closed. Boman & Nilsson 2006/2007a, 145–152.

⁴⁵ Mau 1882, pl. 8; *PPM*, 535, fig. 2.

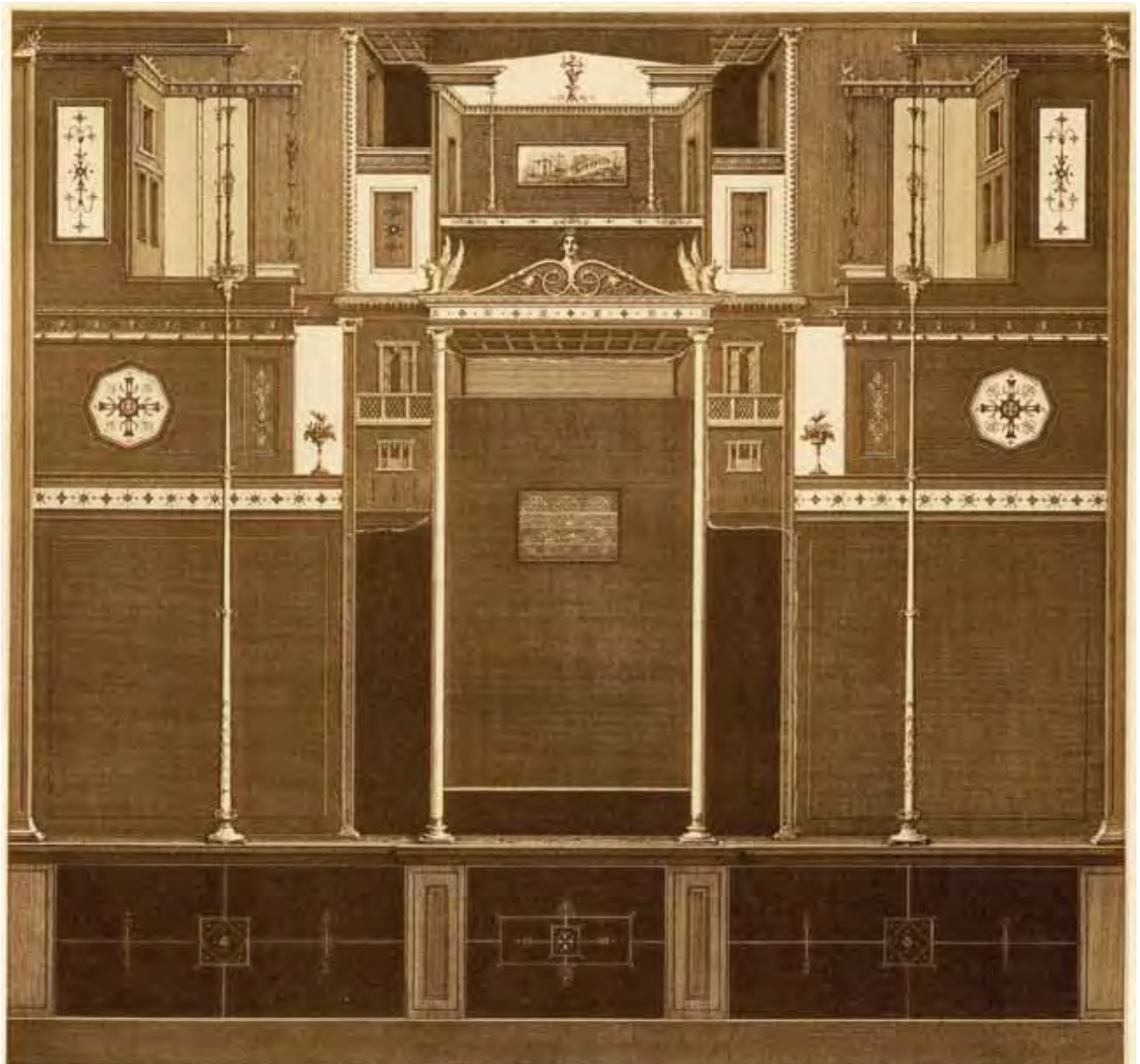


Fig. 12. Lost decoration on south wall of Room V 1,14i according to a 19th-century engraving. From Mau 1882, pl. 8.

a dwelling and not a commercial facility. More recent research prefers to see it as an example of early Third Style,⁴⁶ which would place the creation of this shop opening in the Augustan period—thus, in accordance with the date ascribed to the new shop openings onto Via Vesuvio uphill in *insula* VI 16. It is feasible that the big *taberna* V 1,20–21 was also created in response to the possibilities offered by the new fronting onto the street. The separation from *domus* V 1,23 is marked by a walled-up doorway leading

from the *atrium* of V 1,23 towards the rear of *taberna* V 1,20–21. If walling off was corollary to the fusing of this house and *domus* V 1,26, the event, further discussed later on in this paper, should be placed in the Early Imperial period.⁴⁷ As will be further argued later on, the paving of the street promoted the creation of new, presumably

⁴⁶ Bastet de Vos 1979, 7.

⁴⁷ The identification of this walling off with the major building phase brought by the fusion was suggested by Mau 1876, 232f, 245, 249. It has also been adopted as a working hypothesis by Karivieri & Forsell 2006/2007, 120f.



Fig. 13. The second water tower of the Via Vesuvio/Stabiana/Abbondanza line. Note the calcium deposits on the sides of the tower witnessing the overflow from the flooded *castellum plumbeum* once at the top of the tower. Note also the imprint of pipes along the shaft. By Hans Thorvid.

independent establishments for craftsmen, along the northern part of the *insula V* 1 street front.⁴⁸ The paving may also have been decisive for additional refinement of the larger dwellings as seen by the decorations in the reception rooms of the Casa degli Epigrammi greci, several of which belong to the Second Style,⁴⁹ and, subsequently, the creation of the double *atrium* house to the south, the Casa di Caecilius Iucundus. The possibility to introduce running water into

the houses followed suit and, with it, a still more marked polarisation between the life styles of the large dwellings and the lesser establishments.

Aqueduct water

Present knowledge about the function of the Pompeian water distribution system is not sufficient to allow definitive statements about whether the position of the user in relation to the main distribution line affected his or her water supply: thus, we have no concrete evidence to support our suggestion that the location of *insula V* 1 in relation to the city's main water inlet was particularly advantageous. However, there are some data worth considering. First, a remark of general bearing that emerges from the writings of Frontinus. His mission as *curator aquarum* in Rome was to promote health and security in the City (the end of the system) by *i.a.* insuring the water quality and measuring flows—the latter, not least, as a means for detecting the danger to the public water supply presented by unauthorised, private taps.⁵⁰ As in Rome, the Pompeian water supply came from a conduit with running water (not from a reservoir), which means that if water was siphoned off from the line, the flow below might decrease, especially if the number of taps was allowed to multiply in size or quantity—something that obviously was the case at Pompeii.

Some hint about our city block's suggested privileged position in relation to the water distribution system may also be gained from the nearby water towers. By studying pipe imprints in the calcium deposits, actual pipes, and even nails used for fastening pipes on the walls of the water towers, Gemma Jansen has demonstrated how connections of distribution lines leading from the tower to the different users were made. Height equalled guaranteed water pressure, and each user had his private pipe running all the way up to the *castellum plumbeum* situated at the summit of the tower, where the connection was made. Jansen's scrutiny allows some conclusions as to the number of connections made at each tower. Although caution should be used due to the uneven state of preservation of the towers when calculating the total sum of connections, it may be suggested that the second water tower of the Via di Vesuvio/Stabiana line, situated on a level with the southern part of *insula V* 1 (Figs. 11, 13), was not only the biggest in size of Pompeii's fourteen known water towers,⁵¹ but also the one most used for private taps. According to Jansen, as many as twenty connections can still be differentiated here.⁵² Just as

⁴⁸ Independent, as in the sense of being independent from the big dwellings in this city block. The possibility that the same person owned and worked the premises cannot, of course, be deduced from the material remains that we are examining here. For a full discussion on the alleged independent status of the establishments V 1,13–17, 19–21, see below: Material markers of dependence. The Via Vesuvio street front.

⁴⁹ Staub Gierow 2005, 146–148; Stročka 1995.

⁵⁰ Frontin. *Aq.* 1 and 75.

⁵¹ Richardson 1988, 57.

⁵² Jansen 2000. She has observed a total of 104 connections for the whole of Pompeii.



Fig. 14. Water pipes and cisterns in insula V 1. Blue lines used for inlets, red for drains; kitchen areas in green. By Henrik Boman.

eloquent and perhaps even more positively affirmative arguments result from the study of *insula V 1* itself, from the rich discoveries made here of pipes (or trenches for pipes), distribution boxes and taps (Fig. 14).

The water distribution network rapidly became an unquestionable part of the city's life. Salvatore Nappo's excavations made in preparation for the installation of modern light and water lines under the pavements of several Pompeian streets, among which the west pavement of Via Vesuvio/Stabiana, provide a confused image of a plethora of pipes of different sizes: sometimes in good condition, sometimes broken and sometimes witnessed only by empty, lapilli-filled trenches.⁵³ Nappo's text is descriptive and gives little interpretation of the situation, but important

conclusions may be derived from it. The image of a rather chaotic mass of lines conveyed by Jansen's study of the water towers is confirmed. Most of the pipes discovered were presumably private taps, not the main distribution line. The missing pipes testify either to repairs in progress or removal of lines at a moment close in time to the final eruption of AD 79, as the trenches were lapilli filled, thus open at the moment of the final catastrophe. The fact that the lines were presumably being repaired cannot be interpreted in any other way than that the water distribution system was functional up to the eruption.⁵⁴ In fact the frequent finds of

⁵³ Nappo 1996.

⁵⁴ Ling 2005, 91 suggests that the work in progress consisted in installing pipes, provisionally laid along pavement surface after the earthquake of AD 62/63, in wait for better measures and new lines laid at a deeper level. Also opting for a functioning water distribution: Adam & Varène 2008, esp. 70.



Fig. 15. Atrium of the Casa del Torello, looking north towards the peristyle and nymphaeum. The eponymous fountain sculpture was positioned onto the base standing on the border of the impluvium. By Hans Thornvid.

fistulae and distribution boxes still *in situ* in *insula V 1* indicate that there is little reason to believe that its inhabitants were deprived of their running water in the late period, let alone during the full sixteen-year period following the earthquake of AD 62/63.

Removal of pipes and thus of the water supply connected to the aqueduct, as Rick Jones and Damian Robinson have demonstrated in the House of the Vestals (VI 1,7) in the NW part of town,⁵⁵ is not paralleled in *insula V 1*. Water was supplied to the NW area through another distribution line, ruled by different topographic conditions. The ground is high, only faintly lower than the level of the Vesuvian Gate, which means that the tower was very low (in order to function, its *castellum plumbeum* could not be positioned higher than the level of the outlet from the *castellum aquae* up at the Vesuvian Gate) and therefore probably had insufficient pressure for water jets. It is not surprising that this tower was abandoned and that, instead, the aqueduct line was made to feed the public fountain beside it directly.⁵⁶ Pressure regulation was not needed here. In the NW part of town the earthquake of AD 62/63 and one presumed effect, a disruption in the supply of aqueduct water, may have led to a rethinking of the situation, finding new ways

to obtain water for stunning aquatic displays.⁵⁷ This was not necessary in other parts of town, especially not in *insula V 1*, being particularly well situated both for water supply and for obtaining impressive jets.

Private infrastructures

Aqueduct water in *insula V 1*

In *insula V 1* all the large houses had lavish installations with different kinds of fountains and garden jets. In the two double *atrium* houses, the Casa di Caecilius Iucundus and the Casa del Torello, connections also passed through and beautified the incorporated, secondary *atria* of houses V 1,23 and V 1,3 respectively. Aqueduct water was a signifier of status and distinction that highlighted the differentiation between the three big mansions (add the Casa degli Epigrammi greci to the two formerly mentioned) and the four combined dwellings and commercial establishments (V 1,13; 14–16; 20–21 and 28). Running water was not primarily experienced as an amenity, but as a new possibility for display.

⁵⁵ Jones & Robinson 2005.

⁵⁶ On the abandonment of the tower and the new water line, see Jones & Robinson 2005, 703.

⁵⁷ In the House of the Vestals the aqueduct connection and its pipes were removed. Instead open water surfaces, supplied domestically from a big cistern, decorated its main reception rooms during the last days of Pompeii; Jones & Robinson 2005.

Four lead⁵⁸ jets were reported among the finds made during the 19th-century excavations of the peristyle garden in the Casa degli Epigrammi greci. Today, only the supply system leading to these jets can still be seen. A line of lead pipes is still *in situ* in the corridor that runs aside the *tablinum*. It is part of a supply system that leads from the street through the *fauces* towards the garden. A (now missing) distribution box was situated just inside the west portion of the garden wall (*pluteus*).⁵⁹ Two taps on its exit lines undoubtedly regulated the water supply to the fountains.

The water-supply system of the Casa di Caecilius Iucundus fed a larger series of jets. First on the line was the one that embellished the *impluvium* of the North House, V 1,23, with a similar arrangement in the *atrium* of the grander South House, V 1,26. Water was led through the garden area of V 1,23 to the peristyle of V 1,26 where a distribution box, still *in situ*, close to the northwest corner of the *pluteus* (also here, behind it, i.e., on the garden side of the wall) divided the line in two. One line led the aqueduct water to the *atrium* and its (now missing) *impluvium* fountain, the other to a marble fountain on top of the *pluteus*, in front of the wide opening of the large *triclinium* o (for orientation see Fig. 20). It formed an obvious foreground view for dinner guests reclining on the *clinae* of the big dining-hall. Further on, behind this fountain, they could contemplate the garden and probably more jets. By the foot of the *pluteus* and in front of *triclinium* o, the *fistula* that supplied the fountain turns towards the open space of the garden. Immediately after this turn it goes missing. However, a series of pipes, imbedded in the perimeter wall that separates the garden from the back street (detectable on the street side of the wall) may be understood as modest remains of the water show in the garden. Within the building, the course of a drain corresponding to one of these outlets may be recognised in the disturbed floor surface that marks the mid-line of *exedra* r, the central room on the east side of the garden. It is most probable that a fountain was positioned at its prolongation and that more tangible remains of further fountains would



Fig. 16. The main water distribution box in the peristyle of the Casa del Torello, discovered during the 2004 campaign of the Swedish Pompeii Project. By Hans Thormid.

be found, had the area beneath the actual, re-cultivated garden level been investigated.⁶⁰

Without a doubt, however, the most splendid and spectacular water installations belonged to the Casa del Torello (Fig. 15).⁶¹ A huge distribution box (Fig. 16), situated in the peristyle, was discovered during the field campaign of 2005. The water conduit leading to it, discovered a year later, has at least four times the capacity of the standard *fistula* used in the other houses of this *insula*, and in Pompeii's private dwellings in general.⁶² The box delivered water through seven *fistulae* to two minor boxes and further to the *nymphaeum*, to fountains related both to the garden and the garden porticos, to the *impluvium* fountains of the *atrium* and to the service area. The kitchen and the private bath were provided from another, separate line.⁶³ Our recent investigations in the *atrium* area of the neighbouring house, *domus* V 1,3, show that it was provided with aqueduct water from the north, from a line stemming from the kitchen of the Casa del Torello. A fourth distribution box, situated aside

⁵⁸ Lead is always the material used for all systems belonging directly to the aqueduct supply. In two cases, it was also used to carry overflow water from the fountains: in the peristyles of the Casa di Caecilius Iucundus and the Casa del Torello, in one sole case to transport rainwater: a downpipe made in lead carried water from the roof to the cistern situated in the garden of the North House of Caecilius Iucundus. Otherwise downpipes and drains were generally made of terracotta, as were all pipes belonging to the traditional system of conduits relating cisterns and *impluvia*. In *insula* V 1 the best example of such a system may be found in the North House of Caecilius Iucundus (see, Karivieri & Forsell 2006/2007, 130 and figs. 11, 12, 14). Sections of amphorae could be used as downpipes, especially when inserted into walls. Larger drains are generally masonry built and covered with tiles.

⁵⁹ Staub Gierow 2008, 98, fig. 10.

⁶⁰ As yet no excavation has been undertaken in the garden of Caecilius Iucundus.

⁶¹ Staub 2008; Andersen 1990.

⁶² The outer diameter measured by Staub is 0.06m, as compared to dimensions of a normal Roman pipe, which had an inner diameter of 0.023 m according to investigations made by Fahlbusch 1982, 141.

⁶³ Conjectured by De Haan 1996, 62f. Found during our fieldwork conducted by Staub in 2009.



Fig. 17. Cesspits, latrines and kitchen areas (in green) in insula V 1. State of knowledge in 2008. A full investigation of the southern part of insula V 1 still awaits. By Henrik Boman.

the NW corner of the *atrium impluvium* of V 1,3, channelled water to at least three more jets within this house.⁶⁴

In all the houses in *insula V 1*, the connection to the city's water distribution system dates to the Julio-Claudian period. A closer dating in the Augustan period agrees with the data recovered from the investigations of the Casa degli Epigrammi greci and the Casa del Torello.⁶⁵ At Iucundus' house the introduction of water may have come somewhat later. The connection followed the fusion of the two houses, which in turn is linked to the phase of Third-Style

decorations.⁶⁶ It is obvious that the construction of the Serino aqueduct opened up completely new possibilities for private users. Among the finds made of pipes, taps and distribution boxes in Pompeii,⁶⁷ only one is said to have

⁶⁴ For a more precise description of the water installations of *domus V 1,3* and their importance for the reconstruction of social ties and dependencies in the south part of *insula V1*, see below.

⁶⁵ To be published by Staub Gierow and Staub respectively.

⁶⁶ The possibility that this house had two Third-Style phases has been suggested by Karivieri & Forsell. Although not fully proven as yet, there are arguments in favour of dating the introduction of water to the later of these (in that case somewhat later than the original fusion of the two houses). The *fistula* that runs beneath the mosaic floor of *tablinum* and *atrium* towards the *impluvium* may thus be assumed as contemporary with the covering mosaics; Karivieri & Forsell 2006/2007, 125, 133–135.

⁶⁷ Jansen (2000) mentions 16 houses with such finds. To be compared with her total of 91 connected houses: Jansen 2001, 28–29. De Haan 2001, is of the opinion that the total of 30 private baths in Pompeii all belong to the period after the construction of the Serino aqueduct.



Fig. 18. Taberna V 1,2 on Via di Nola. Note the relieving arch in the rear wall. Note also the damage in the horizontal brick courses further left (W), caused by a post-eruption robber tunnel. By Hans Thorvid.

belonged to an earlier system.⁶⁸ It would seem as though the older,⁶⁹ Sullan aqueduct supplied mainly public facilities.

Water in plenty was assuredly a feature that characterised Imperial Pompeii, most prominently so in areas such as *Insula V 1*, close to the main distribution lines of the aqueduct water. Apart from all spaces built especially for it (reservoirs, public and private baths, pools, basins, *impluvia* and other decorative water displays, public fountains—at present count numbering 44 (see Fig. 11), assuring ample water for both domestic use and “industry”), one must also include the constant overflow, pouring down on the passers-by from the *castella plumbea* of the water towers and flowing out from the public fountains into the streets, adding to the surplus exiting into the street by means of drains from numerous private houses. It is worthwhile noting that in none of our houses was aqueduct water used primarily for filling cisterns.

In the case of Iucundus’ house it is striking how the pipe that constitutes the main inlet of aqueduct water on its way towards the sumptuous reception area of the South House passes next to the draw shaft of the cistern in the garden of the North House, circumscribes it and continues towards the south without entering the cistern, thus without furnishing an additional means to supply it with water.⁷⁰ The pipe that actually enters the shaft through a perforation beneath floor level does not belong to the aqueduct system. Instead it is a direct continuation of the leaden downpipe draining water from the roof—part of it is preserved as it descends the near-by wall belonging to *triclinium k* (for orientation, see Fig. 20). It is quite clear that the function of this cistern was to collect rainwater only.

Drainage pipes exiting through garden perimeter walls demonstrate how water from the fountains could be carried directly to the street. There is one drain leading overflow from to the street from the big *nymphaeum* of the Casa del

⁶⁸ Eschebach 1996, 2, fig. 2.

⁶⁹ Ohlig 2005.

⁷⁰ Karivieri & Forsell 2006/2007, fig. 15.



Fig. 19. Façade of the Casa di Tofelanus Valens V 1,28. By Hans Thorvid.

Torello and another from the garden gutter of the Casa di Caecilius Iucundus, as well as three more, minor ones exiting from the garden area of this house. All these examples lead one to suspect that the drainage of water was a greater concern than its collection in Imperial Pompeii.

It is obvious that the principle use of aqueduct water in private houses was for show, but lesser quantities were also intended for practical purposes. Both of the largest houses, the Casa del Torello and that of Caecilius Iucundus, had kitchen lines. Of these, the latter is the so far better known. It originated in the same distribution box (now missing but mentioned by Mau) as the line supplying the South House. From here it passed directly towards the kitchen situated in the backyard of the North House, V 1,23. The water was collected in a reservoir of modest dimensions by the stove. Overflow or waste was used to flush the floor of the nearby latrine, after which it was led out of the house either to the street by means of a pipe, or through the shaft of the latrine, flowing into a large cesspit situated beneath the pavement outside the house.

Although the running water was mainly used for pleasure and display, this new resource furnished by the community could also be recycled in an economically more profitable way. In the case of *domus* V 1,3, appended to the Casa del Torello, run off from the fountains joined rainwater and was collected in the two open pools of the house

from where it was led to feed a series of cisterns, among which those of the neighbouring workshops V 1,4 and V 1,31 (Fig. 14, 27). A similar example of reuse was discovered when clearing *taberna* V 1,27 in front of the South House of Caecilius Iucundus. Emerging from the *atrium*, beneath the level of its precious mosaic floor, was a terracotta pipe, obviously intended to feed into a cistern mouth discovered in the *taberna*.⁷¹ The cistern discovered here was filled with earth but no lapilli, which means that it was no longer in function at the moment of the eruption. This pipe, like the drains of *domus* V 1,3, was made of terracotta, not of lead. As lead is the material used for all systems belonging directly to the aqueduct supply, this may suggest a dating earlier than the introduction of aqueduct water for this rational system of using surplus water. The way in which drains and water inlets together with other material evidence may be used to trace social dependency in Roman Pompeii will be left aside at present but returned to as a major issue, below.

Latrines and kitchens—questions of hygiene

An important number of refuse pits have been found during the work of the Swedish team in *insula* V 1, most of

⁷¹ Karivieri & Forsell 2008, 107, fig. 10; www.pompeijiprojektet.se/insula.php, V 1,27 Taberna - Floor.

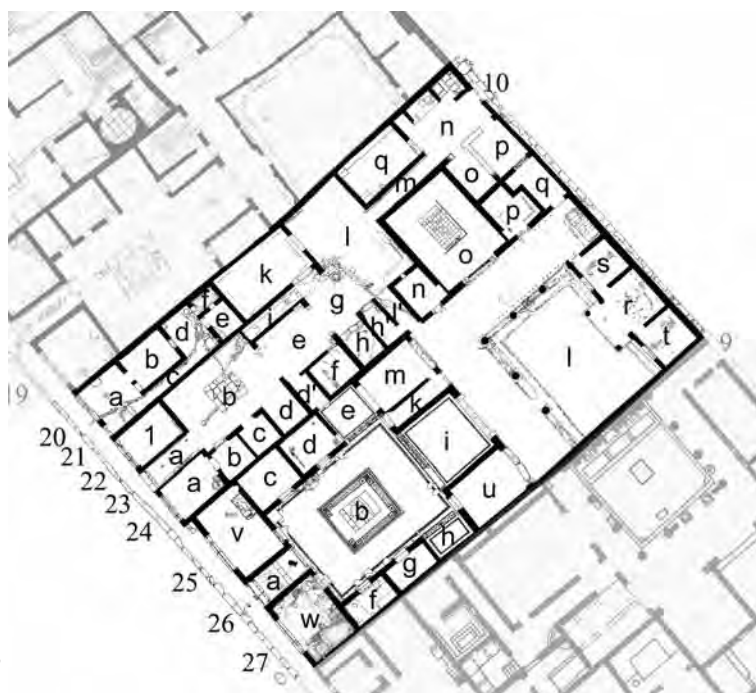


Fig. 20. Plan of the double atrium house of *Caecilius Lucundus* with *taberna* V 1,20–21. By Ezequiel Pinto Guillaume.

which may be identified as cesspits. When plotted on the map of the city block (Fig. 17) they reveal some basics about how this most intimate kind of hygiene was coped with. Regardless of how modest or how big the premises, it seems to be the rule that all entities had but one latrine.⁷² Two observations can be made: first, that the number of latrines had nothing to do with the number of people living in and using the premises, and, secondly, that the atmosphere of the big houses must have been infinitely more wholesome than that of the *tabernae*. In the latter, the latrine and its odours must have dominated the crowded, multi-functional space, whereas in the former the lack of latrines, almost always banished to a peripheral position in the house, must indicate that the inhabitants and guests used movable facilities (chamber pots) for their needs.⁷³ That smells were not welcomed and, when possible, avoided is demonstrated by the fact that in all medium-sized houses

investigated up to now (*caupona* V 1,13, bakery V 1,14–16 and commercial establishment V 1,20–21), the latrine and kitchen are in the inner part of the premises, away from the front rooms where the establishment met its customers. In the large houses they are always separated from the reception areas of peristyles and *atria*. It is worth noting the presence of a feature resembling a hand basin in the east portico wall of the peristyle in the Casa del Torello.⁷⁴ The latter was not directly connected to a source of water but Mau mentions a now missing outlet close by, attached to the second column of the east portico.⁷⁵

Finally, one may conclude that even if the big houses were as crowded as hypothetical demographic estimates have claimed when counting one inhabitant per room,⁷⁶ life in a big house would still be a very different experience from that offered by the small accommodations, not only in regard to space but also concerning smells to be endured and hygiene and privacy respected. The fact remains, however, that in both rich and poor houses, kitchen and sanitary functions tended to occur in insalubrious proximity

⁷² The two latrines in the Casa degli Epigrammi greci in Fig. 17 were not coeval.

⁷³ It could well be that this is the use of the kind of vessel that was called *vasa faecaria*, known from various Pompeian graffiti, including the list of pots sold in the pottery shop of Zosimus (III 4, 1). A recent review of the scant evidence of the finds in this shop may be found in Peña & McCallum 2009, 19–20. There is no evidence from the shop which vessel the term denotes. Since the publication of this graffiti in *CIL* 4, suppl. pars 3, fasc. 1 (M. de La Corte), 1952, no. 7678, the term has generally been believed to denote a container intended for fish pickle as there is a passage in Pliny (*NH* 31,44,1) that equals *faex* and *alex*.

⁷⁴ *PPM* III, 507, figs. 89–90.

⁷⁵ Staub 2008, 113. It could be that a semicircular base covered with hydraulic plaster situated in the garden area of the North House of *Caecilius Lucundus* also may have served as a hand basin and not, as earlier suggested, a purely decorative feature such as a birdbath; Karivieri & Forsell 2006/2007, 127.

⁷⁶ Wallace-Hadrill 1994, 100–101.



Fig. 21. Front room (a) of taberna V 1,24. A big pit (underground storeroom) was found in the southeast (upper right) corner. Note the narrowed doorway leading into the rear shop (V 1,24b). By Hans Thorvid.



Fig. 22. Northeast corner of taberna V 1,25. Note the drain of a second-storey latrine and the position of the cesspit, corresponding on the other side of the boundary wall to that of the storage pit in taberna V 1, 24a. The southern part of the staircase base is original. By Hans Thorvid.

to each other.⁷⁷ It should be noted, however, that in this respect, both the Casa degli Epigrammi greci and the Casa del Torello offer examples of better housing. In the latter house, the private bath and the possible peristyle hand basin also ameliorate conditions that certainly could be used to corroborate Rostovtzeff's modernist interpretation of Pompeian living standards, but as we have seen, this should not be generalised.

Reconstruction—Post-earthquake Pompeii

The earthquake and the archaeological record

The earthquake of AD 62 (or 63) is one of the few events occurring in Pompeii to have entered the ancient literary legacy.⁷⁸ Based on these texts and archaeological facts (such as the ruinous state of the Forum and the large amount of Fourth-Style decorations—generally considered inferior to earlier wall decorations in the old, formative research on Pompeii), 19th-century scholarship tended to stress the great impact that this seismic disturbance had on Pompeian city life, anticipating by sixteen years the final catastrophe. The knowledge and understanding acquired from his intensive work in Pompeii in the 1930s and 1940s led Amadeo Maiuri to develop this idea and to conclude that the aftermath of the earthquake was of an order important enough to have changed the social composition of the body of citizens (hypothesising that the political and financial elite abandoned Pompeii in 62, leaving their freedmen and custodians in charge), and thereby also the way of life in Pompeii.⁷⁹ This interpretation remained the prevailing one for about half a century, until the 1980s, when the conjoint testimony of archaeological and volcanological research contributed to modify the picture.⁸⁰ The model excavation initiated in 1987 by Antonio Varone for the Soprintendenza Archeologica di Pompei in *insula* IX 12 (Casti Amanti) has demonstrated that the earthquake of 62/63 was not the only seismic activity to have damaged the city.⁸¹ The eruption of 79 was preceded by other tremors closer to the final catastrophe. Evidence retrieved from *insula* V 1 as well also

⁷⁷ The different arrangement in the Casa del Torello will be presented in the forthcoming study by Staub.

⁷⁸ Seneca *NQ* 6.1.1–3; 6.1.10 and Tacitus *Ann* 15. 22; see n. 7 above.

⁷⁹ Maiuri 1942, 161–163, 216f. For a summary of Maiuri's arguments and for a series of thoroughly reported counterarguments, see Andreu 1973.

⁸⁰ Maiuri 1942, 152, 217; Fröhlich & Jacobelli 1995. For a useful, recent summary, see Cooley 2003.

⁸¹ Varrone 2005.



Fig. 23. Brick stitch repairing a fissure in the facing of the south wall belonging to the rear shop (b) of *taberna* V 1,24. By Hans Thörnid.

underlines the fact that repair and renovation were ongoing and permanent features of Pompeii up to AD 79. Sixteen years is a long time to leave a city centre in ruins, or to leave big properties in disrepair in the hands of custodians.

It follows that AD 62/63 as a clear-cut, absolute, chronological division between pre-earthquake conditions and a *post quem* dating of repairs is no longer as convincing as it was. Consequently, different types of attempts have been made both to find methods for better recognition of earthquake aftermath—damage and repairs⁸²—and to date them. But even so, the image that emerges of the situation after the earthquake is far from conclusive. Recent systematic

scrutiny of wall structures in those scattered parts of town that have been the subject of serious archaeological re-examination indicates that the impact of earthquake damage may vary from one part of the town to another. In the case of the House of the Vestals by the Herculaneum Gate, the only effect of the earthquake found after close study was the cessation of the use of aqueduct water.⁸³ Occasionally a house or a full *insula* was entirely reconstructed after the calamity (albeit not necessarily because of it), but more often the repairs were of a more restricted nature, rebuilding partly collapsed walls or reinforcing piers. The Casa dei Postumii, the private baths of the Casa del Menandro, the Central Baths and the so-called Temple of the Public Lares on the Forum are examples of buildings that for different reasons are considered to have been seriously repaired or totally built anew after the earthquake of AD 62/63.⁸⁴

Close study also reveals that not all damage or reconstruction should be understood as the effect of seismic devastation. Post-eruption looting or the recovery or theft of precious goods such as the marble revetments of the Forum,⁸⁵ sculptures in marble and bronze and all kinds of metal fittings⁸⁶ could account for some of the ruined state of the remains. This kind of activity occurred both in the period immediately following the eruption and in the early modern period in both public and private spaces. It is evidenced in several houses of *insula* V 1 (Fig. 18), just as is a general weakness or instability of the sub-surface levels in many houses due to numerous cavities caused by various activities: ancient digging for building material, *pozzolana*, cisterns, latrines and storage pits. In the following, new construction and repairs detected in *insula* V 1 will be described and the difficulties involved with attempts to establish causes for repairs and reconstruction demonstrated. Finally focus will be turned from the discussion of the exact chronological anchorage of repairs and late masonry towards the social interpretation of the phenomena.

⁸³ Jones & Robinson 2004, 119–121.

⁸⁴ The realisation of the late date of much of the standing remains of the Casa dei Postumii (VIII 4,4) results from wall study (Pirson 2005, 133) and, in the case of the Casa del Menandro, from the study of walls and decorations (Ling 1997, 90). The date of the Central Bath is deduced from the dominant use of late brick facing on the walls (Maiuri 1942, 74–77), together with the advanced plan of the building. An argument based on advanced design is also valid for the discussion on dating concerning the so-called Sanctuary of the Public Lares, Dobbins 1994, 685–688 (Dobbins, as Zanker, favours the idea that this building housed the Imperial cult rather than that of the Public Lares).

⁸⁵ Dobbins 1997; Wallat 1997.

⁸⁶ Compare the robbed state of the interior installations of the *castellum aquae*, Adam & Varène 2008, 69f.

⁸² On different kinds of earthquake failures at Pompeii, see Martini 1997.



Fig. 24. The South House of *Caecilius Lucundus*, northwest corner of atrium. Openings towards cubicula *c*, *d* and ala *e*. By Hans Thorvid.

Earthquake sequels in *insula* V I—alleged and undisputable

Late masonry, relieving arches and foundation fragility

The street-front premises of the SW corner of *insula* V 1, from the Casa di Tofelanus Valens (V 1,28) on Via Vesuvio to the west jamb belonging to the entrance of *domus* V 1,3 on Via di Nola, contrast with the rest of *insula* V 1 both in that they present few remains if any from the early days of urbanisation and in the extensive use of brick masonry. East of the *fauces* of *domus* V 1,3, behind the proud Samnitic ashlar façade, the brick work continues in the interior of the dyer's workshop (V 1,4–5). There is, as yet, no evidence for an exact dating of the construction of these shops. When mentioned in scholarly literature, they are generally considered as typical examples of the post-earthquake rebuilding effort. A strong argument for the late date of this architecture is the proximity to the Central Baths (IX 4,5–18), on the other side of Via di Nola, and the fact that the brick building techniques used in the renovated *tabernae* closely resembles those used for the Baths. According to a generally accepted hypothesis this grand building project, still in progress in AD 79, was undertaken on the site of ruins

where earlier dwellings had been destroyed by the tremor of AD 62/63.⁸⁷

The use of brick in itself is not indicative of late architecture. Brick quoins that key into rubble-faced walls are common enough in Pompeian architecture from the Late Republican period and on,⁸⁸ just as is the use of brick as the only material, especially for jambs in Early Imperial masonry. It is rather the combination of these techniques with masonry combining brick and stone that has come to be seen as indicative of late architecture in Pompeii. Especially *opus listatum* (also called *opus vittatum mixtum*, *vittatum*, or *mixtum*), an ornamental wall-facing technique in which small limestone or tufa building blocks ordered in one regular course alternate with one or two brick courses, is often interpreted as post-earthquake repairs in archaeological

⁸⁷ Maiuri 1942, 74–77. In his presentation of the Central Baths, Maiuri argues against an idea put forth by Sogliano (Notizie delle scavi 1888) according to which *insula* IX 4 housed a forum prior to the construction of the Central Baths. He states that the Baths, built *ex novo* after the earthquake, were made on ground containing more or less ruined houses, “... sulle rovine di case private più o meno gravemente danneggiate del terremoto, costituenti un'intera *insula*”.

⁸⁸ Wallat 1993, 356f, 363–366; Ling 2005, 61 and pl. 5.

reports. Although caution should be taken, as even this technique may appear earlier than the earthquake, it is still justified to regard it as an indicator of late building phases in Pompeii.⁸⁹ In the SW corner of *insula* V 1 pure brick work is frequently found in street-front-related masonry: jambs and piers carrying the second-storey façades, whereas *opus listatum* occurs mainly in inner partitions and upper storeys (Figs. 7–8, 18, 29–30, 39). Horizontal lines constituted by some courses of bricks (one or two lines per wall) that run across the main wall facing, made of rubble or *incertum*, also belong to interiors. In one case we may note the use of a building-block panel set centrally within a brick-faced wall—used for the Via Vesuvio façade of *thermopolium* V 1,33.1 (Figs. 7, 39), and the use of *opus reticulatum* combined with *opus listatum* for the second-storey façade of the Casa di Tofolanus Valens (Fig. 19).

There is little doubt that the brick façade of all shops from V 1,29 to V 1,32/1 on Via Vesuvio and from V 1,32/1 to the west jamb of *domus* V 1,3 on Via di Nola were made in one coordinated building effort, related to the creation of the second storey above. Since detailed study of this part of *insula* V 1 has not started, it is yet too early to state whether the deep, inner spaces of this brick and rubble architecture may reveal evidence of more phases than this single building project. A feature well worth noting because it may suggest a coordinated enterprise also in the inner parts of this architecture is the appearance of low-placed relieving arches occurring to and fro in the SW quarter,⁹⁰ but nowhere else in *insula* V 1. *Taberna* V 1,2 has two impressive arches of this kind: one in the west, the other in the north wall (Figs. 8, 18). More may be observed in the wall separating the two rear rooms of the dyer's (*taberna* V 1,4) and yet another in the south wall of the cellar of the Casa del Torello. As the use of such relieving arches does not appear elsewhere in *insula* V 1, only in the totally rebuilt architecture of the SW corner, one may deduce that for some reason this part of the city block was considered more fragile than the rest of *insula*—perhaps because it was more damaged than the other parts during the earthquake. On the other hand, it can well be that there were other reasons for these precautions: much of, if not all the new street-front architecture was projected for a second storey, which added weight to the structure and on the foundation.

In other parts of the *insula*, no similar precaution was observed, not even in cases when new pits were dug, undermining important supporting structures. Most striking are the pits occurring on both sides of the wall separating *tabernae* V 1,24 and V 1,25 (Figs. 21–22). It comes as no surprise that the only “typical” earthquake repair to be reported in *insula* V 1 is situated in the south wall of the rear shop (b) of *taberna* V 1,24 (Fig. 20, 23). The wall appears to have tilted towards the west, in the direction of the front room and the destabilizing pits. A brick “stitch” fills an oblique fissure made in the face of the wall; the repair resembles a misaligned pillar, frozen in the act of falling. However, the other face of the wall—belonging to *cubiculum* c (Fig. 20) of the South House, shows neither a similar tilt nor a fissure.⁹¹ Further west, the continuation of this wall face within *taberna* V 1,25 does not reveal any other kinds of alteration than what may have been created by the insertion of the shaft that once served the second-storey latrine (Fig. 22), related to the cesspit situated in the NE corner of V 1,25 (the latrine shaft is incorporated mainly into the E wall of *taberna* V 1,25 but its lower part encroaches also upon the N boundary (that is, the wall shared with *taberna* V 1, 24 and bridging the two pits).

Thus, it seems clear that the repair in the S wall of the rear room of *taberna* V 1,24 bears witness to no more than a superficial injury to the wall facing. If caused by the earthquake, it cannot have seriously damaged the architecture. It could just as well be that this repair had nothing to do with earthquakes at all but was caused by work on the shaft of the latrine in the neighbouring *taberna* or, more generally speaking, with the creation of the second-storey flat, accessed from *taberna* V 1,25 (Fig. 22), for which the latrine was intended. That the state of this wall was not considered a threat to the stability of the room on its south side, opening towards the main *atrium* of Caecilius Iucundus, is witnessed by the fact that this *cubiculum* (c) was considered safe enough for storage of household necessities in AD 79. Many of the small finds made in the house during the 1875 excavations came from this room.⁹² In fact, there is no sign of any earthquake damage in the famous *atrium* of the Casa di Caecilius Iucundus. The same types of wall plaster and, when preserved, Third-Style decorations can be found on all walls of the *atrium* (Fig. 24). In microscope examination plaster sampled from a patch still sitting on top of the brick

⁸⁹ Wallat 1993, 355, 379f; Dobbins 1994, 637. As we will see below, when discussing earthquake damage in the House of Caecilius Iucundus, Dexter erroneously, used this technique as a diagnostic feature for dating structures to the last 16 post-earthquake years of Pompeian city life; Dexter 1974, 116.

⁹⁰ The material used for the masonry of these arches differs. Those of *taberna* V 1,2 are made of brick, whereas in V 1,4 small Sarno limestone building-blocks are used. The arch is also stone built.

⁹¹ www.pompejiprojektet.se/insula.php, V 1,26 Casa di Caecilius Iucundus - South House, Room c - N wall.

⁹² Karivieri & Forsell 2008-04-04, South House of Caecilius Iucundus, Room c, quoting Mau 1876.



Fig. 25. The South House of Caecilius Iucundus, south wall of the garden room *s*. Note the collapsed state of the wall, partly sunken into the cellar beneath. By Hans Thorwid.

repair turned out to indicate its belonging to a type clearly used for pre-earthquake contexts in this house.⁹³

To sum up so far, this discussion leaves us with two different ways of approaching static problems. The first may well have been provoked by a devastating experience provoked by the earthquake but also witness about an, in this *insula*, exceptionally large building project involving a good number of separate street-front premises, the second

⁹³ Stone conservator Carin Pettersson has carried out systematic plaster sampling and analyses in the northern part of *insula* V 1 (2001–2006), which has allowed us to define and map the different types of plasters used in the houses. Some of her observations will be entered into a database under construction by Dr Agneta Freccero (in collaboration with Mats Holmlund, IT-expert of the Swedish Pompeii Project) in a project supported by the Swedish Research Council. Freccero led the plaster analysis work in *insula* V 1 during the first two field campaigns, 2000–2001. For more on the method, invented by Reinhard Meyer-Graft and further developed by Freccero, see Freccero 2005. Plaster analysis is an appealing method of identifying successive decoration phases in the houses because it is based on a self-contained system and allows results concerning the relative chronology of building phases, parallel to and independent of the masonry study. I owe special thanks to Dr Freccero for intense discussions on the difficulties involved.

apparently occurred at a date earlier than that of the earthquake. In order to find indications of undisputable earthquake damage we should turn our attention elsewhere.

Damage to the Casa di Caecilius Iucundus

The idea that *insula* V 1 was struck particularly hard by the earthquake of AD 62/63 is undoubtedly related to the find and subsequent interpretation of the *lararium* relief at the Casa di Caecilius Iucundus.⁹⁴ The suggestion that the imagery represents the aftermath of this earthquake dates back to the late 19th century.⁹⁵ In his *Ultima fase edilizia di Pompei*, Amadeo Maiuri called attention once again to the relief: whereafter the earthquake interpretation has received unchallenged consensus.⁹⁶ Maiuri naturally sought for examples of earthquake damage in the house but did not report on anything more serious than brick repairs made to the peristyle columns. The same observations were subsequently repeated and elaborated upon by Dexter. It was not until the work of Arja Karivieri and Renée Forsell, in charge of the study of the Casa di Caecilius Iucundus for the Swedish project, that the much greater extent of the factual damage suffered by the rear part of the South House was fully revealed.⁹⁷

At some moment subsequent to the introduction of its Fourth-Style decorations, the east garden wing of the house collapsed. The whole partition wall between the central room of the east garden suite, *exedra* *r*, and the room *s* north of it (Fig. 20), as well as part of the window wall of room *s* (its SW corner), sank into the cellar beneath it. The repairs—still easily noticed—consisted of building up the

⁹⁴ The famous *lararium* relief in the Casa di Caecilius Iucundus (V 1,23.26) showing the ruined Forum and its “twin”, the panel showing the collapsed Vesuvius gate and further results of the seismic activity in that area, are unique earthquake memorials from antiquity. The original provenance of the twin relief is unknown. The fact that it was exposed in the Casa di Caecilius Iucundus (placed for a long time in the wall above the *lararium*) is no proof of provenance. Maiuri (1942, 11, 20–21) tried to determine its history without success and finally decided to argue in favour of a provenance from Iucundus’ house after all. The argument remains feeble. More recently, for the reliefs and for further bibliography, see Huet 2008.

⁹⁵ Maiuri 1942, 12–13 relating opinions expressed in earlier research up to the 1920s (de Rossi followed by Ruggiero and Viola, Thédénat, and finally by Sogliano and Spano).

⁹⁶ There is also a consensus on the building—the Jupiter Temple—represented on this relief and on the *castellum aquae* and the Vesuvian Gate on the other. Otherwise, the religious paraphernalia forming an important part of the imagery of both reliefs, and accompanying this discussion, that of Iucundus’ involvement, has been interpreted very differently. For a recent summary, see Huet 2008.

⁹⁷ Karivieri 2005, 154f.; Karivieri & Forsell 2006/2007, 134–136. For earlier discussions, touching mainly the columns of the peristyle, see Karivieri & Forsell (2008-04-04), [www.pompeijiprojektet.se/insula, V 1,26, Casa di Caecilius Iucundus, South House, Room I \(peristyle\)](http://www.pompeijiprojektet.se/insula,V1,26,Casa%20di%20Caecilius%20Iucundus,South%20House,Room%20I(peristyle).).



Fig. 26. Window with garden view. West wall of room *s* of the South House of *Caecilius Iucundus*. Note the sunken *S* part of the wall and the broken window-sill. By Hans Thornwid.

walls again on the remains of the old ones, apparently still standing, but “dwarfed” (Fig. 25). As a result the doorway communicating between rooms *s* and *r*, still set into a preserved remnant of the earlier (now somewhat sunken) wall, is very low and the sill of the garden window of room *s*, broken in two, is on two different levels. Its sunken southern end is integrated in the masonry of the readjusted wall, some 0.3–0.4 m below the window, while the main part of the sill is still in its original position (Fig. 26). The decoration of room *s* includes a lower zone consisting of a red dado. On the south wall only small portions of the upper part of the red dado can be spotted (Fig. 25). The rest has sunk into the cellar together with the part of the wall to which it was applied. In the case of the window wall, the dado shows the same eccentricity as the window-sill.

Little needs to be said regarding the obvious effects that this collapse must have had on the roof of room *s* and the neighbouring exedra.

Especially the collapse of the exedra must have created a large decrease in the ceremonial and status-bearing value of the house, something that was apparently considered much more aggravating than the damaged interior of the garden rooms. After the disastrous event, the garden columns were repaired, as already noted by Maiuri and Dexter. Numerous fresco fragments found in the east garden gutter indicate that the wildlife painting that once decorated the south, non-porticoed wall of the garden had also been damaged. The extensive, still extant coverage of plaster on this wall suggests that the painting was restored in antiquity.⁹⁸ All this work, including also the embellishing of the NW corner of the *atrium* with its new *lararium* (Fig. 24), shows that much effort went into restoring the public face of the house, whereas the interiors of the more intimate, smaller rooms were treated differently. The renewal of their wall decorations was neglected. The damage in room *s* was not hidden by retouches or under new decorations.

One may argue that the calamity that struck this house was caused by the unwise decision to build heavy structures on top of the cellar: as such, it could have occurred at any moment in time—an earthquake was not needed to make it happen. But the fact that the Fourth-Style decorations of Rooms *s* and *r* preceded the collapse sets the lower limit of the chronological window when the damage may have taken place to a date very close in time to the earthquake. That it must have occurred after the introduction of aqueduct water is also demonstrated by a series of successive efforts to prevent spill-over from the garden fountains from reaching the east gutter and the cellar behind it.⁹⁹ The idea behind these futile measures was no doubt to diminish the risks involved with the combination of fragile foundations for the architecture and the water display in front of it. The reconstruction of the fallen elevations and the fact that the recorded damage concurs with evidence that indicates an earthquake—the *lararium* relief—and a dating—the cessation (early February 62)¹⁰⁰ of the famous archive—make the case that the damage was caused by the ill-famed AD 62/63 earthquake stronger here than in any other part of Pompeii.

From this discussion it may be concluded that the traditional argument used for detecting earthquake damage in Pompeian architecture, advancing late masonry techniques as an indicator, is a very imprecise tool. The repairs made to the sunken walls of *Iucundus*’ garden rooms do not display

⁹⁸ Karivieri, pers. comm.

⁹⁹ Karivieri & Forsell 2006/2007, 134–136.

¹⁰⁰ Wallace Hadrill 2003, 184f, points out that the archive did not come to an abrupt end but rather, that there was a decline after an acme in 59, which may suggest that the cessation could have come about through natural causes. He also argues for the later, AD 63, dating for the event.



Fig. 27. Plan showing the southwest part of insula V 1, with waterlines, inlets in blue, drains in red. Kitchen of the Casa del Torello in green. After CTP IIIA. By Henrik Boman.

the use of techniques indicative of late masonry.¹⁰¹ The only instances are the *opus listatum* used to frame the windows of Rooms s and t, but in these cases they obviously antedate the calamity: in Room s the *listatum* frame follows the same break pattern as reported above for the window-sill (Fig. 26).¹⁰² Indeed, it would seem that the ancient masons (just like their modern counterparts, carrying out restoration work in today's Pompeii) reused as much as possible of the older destruction material, close at hand. As a result, there are many examples of patchwork repairs, where various materials were used to fill in gaps and shore up other damage; this may of course be attributed to earthquake damage, but could have many other reasons as well. In every discussion on earthquake damage, one should also keep in mind the amount and nature of the undamaged masonry. Concentrating exclusively on the chronological significance of the rebuilt parts of Pompeian architecture may draw attention from other, equally important, observations.

One resides in the fact that in *insula* V 1 the Casa di Caecilius Iucundus apparently was the only among the large dwellings to have been seriously struck by the earthquake.

¹⁰¹ It should be noted that the window frames of both garden rooms (s and t) are made of *opus listatum*, which caused Dexter to conclude that they were post-earthquake repairs. This is not feasible since in room s the southernmost part of the window frame, made in *listatum*, has sunk with the part of the sill on which it still stands; which means that, in this case, the *listatum*-masonry antedated the earthquake.

¹⁰² Dexter's conclusion (Dexter 1974, 116) that this masonry could be used to date the windows and thus also the creation of the garden rooms in the east portico of the Casa di Caecilius Iucundus to the latest period of Pompeii is obviously erroneous.

Damage to the peristyle columns may be reported also in the Casa degli Epigrammi greci, but no bearing walls seems to have collapsed in this house. It could well be that the Iucundus' household was even more fatally affected than witnessed by the architecture. Recent examination of the casting technique of the famous, hyper-realistic bronze portrait dedicated to the "Genius of our Lucius" indicates that it could be added to the evidence that link this house to the earthquake. The casting technique indicates that this portrait should be dated to the last phase of Pompeii, and not, as generally held on stylistic grounds, to the Augustan period.¹⁰³ Thus, it could be after all that it presents the likeness of the banker himself and not, as has been conjectured since the 1950s, an alleged older relative.¹⁰⁴ As long as Iucundus' tomb has not been found and proved the contrary, we may hypothesise in line with older scholarship or, for that matter, contemporary scholarly texts venturing to narrate Pompeii through fiction, that the herm is yet another monument commemorating the losses of AD 62/63; that the owner himself was perhaps killed in the earthquake.¹⁰⁵

In any case, the dating of the portrait to the Neronian/Flavian period reinforces the character of this *atrium* as a memorial area referring to the history of the house, to the owner and to his public role (in the Forum as shown by the relief). The suggestion that emerges from the study of *insula* V 1 as a whole¹⁰⁶ is that the reason for the inhabitants of the Casa di Caecilius Iucundus to commemorate the earthquake of AD 62/63 should primarily be understood as a tribute to family travails and image, and not as a statement concerning the general suffering of society as a

¹⁰³ For a dating based on the casting technique, see Lahusen & Formigli 2007, 139. Examples of former period styles used in commemorative portraiture, such as older relatives in Imperial groups and other cases, apparently with the intention of marking the importance of the portrayed as an ancestor and/or the founder of a community, are given by Fejfer 2008, 280–285, 300.

¹⁰⁴ De Franciscis 1951, 31–34.

¹⁰⁵ The idea that Caecilius was killed in the earthquake, although unsubstantiated, has recurred frequently in studies treating his archive, including the fundamental analysis of these texts. See, for example, Andreu 1974, 28f., where this idea is presented as one conjecture among many. On this issue in older research, see Wallace-Hadrill 2003. This supposition has also been allowed to return in the recently created genre of scholarly fiction, where Pompeii experts allow themselves to present more intuitive ideas concerning the city's life and people than is normally permitted in scholarly writing. Butterworth & Laurence 2005, 156, for example, have him die in the Forum, whereas, of course, we would rather place the event in the vicinity of his eastern garden portico.

¹⁰⁶ Possible earthquake damage is not completely lacking in the other houses. This may be conjectured for example for columns in the peristyle of the Casa degli Epigrammi greci, but the striking overall impression of good preservation prevails.

whole. The commemorations reconstructed the face of the household, just as the repaired architecture reconstructed that of the house. Below we will see how a similar close link to household cohesion—perhaps more important to the understanding of Pompeian society than the any precise mapping of earthquake damage—may be recognised in the large building project of the SW quarter of *insula* V 1.

Reconstruction as a sign of stable social order

Investigations in *domus* V 1,3

New evidence that came to light during the 2008 campaign in *insula* V 1 has produced arguments that suggest that the homogeneity of the corner architecture may be used for other kinds of interpretations than just suggesting earthquake damage and repair, as discussed above.¹⁰⁷ Surface cleaning followed by a shallow excavation in the *atrium* of the small *domus* V 1,3 has revealed a system of water pipes (Figs. 17, 27) that strongly suggests that this house as well as the surrounding *tabernae* were dependencies, belonging to a single estate in which the Casa del Torello (V 1,7.9) constituted the dominant residence.

A lead pipe, connected to the water installations of the kitchen and the *prefurnium* in the Casa del Torello, was discovered in the *atrium* of V 1,3. It emerges from beneath the floor of corridor **b** (Figs. 27–28), oriented towards the nearby service area of the Casa del Torello, and runs through the *atrium* of *domus* V 1,3. The pipe is preserved intact *in situ* to its full length from the opening of corridor **b** into the *atrium* where it enters a distribution box situated west of and adjacent to the *impluvium* curbing. Two lines, each equipped with a closing tap, run south, probably to feed water installations related to the *impluvium*. Both are broken shortly after the box. A third line follows the northern border of the *impluvium*. After an interruption, no doubt due to the 19th-century excavations,¹⁰⁸ it reappears as it ascends from beneath the threshold that separates the *atrium* and the open courtyard (**d**), which contains a pool surrounded on three sides by benches. The pipe disappears into the



Fig. 28. Atrium floor of *domus* V 1,3. Note the water lines, the distribution box and the drains. North towards the top of the picture. By Hans Thorvid.

westernmost of the masonry-built benches and reappears anew in the centremost part of the central bench, where a fountain must have been situated, throwing its waters into the pool beneath. Pool, fountain and benches made up the view from the oblong room (4) set up beside the *atrium*. These lead pipes testify not only to an interrelation between the two houses, but also to the fact that the smaller of the two could be used for functions similar to the main reception spaces of the big house. Of the two potential communications between main house and dependency, corridor **b**, directed towards the kitchen area of the main house, was firmly walled up already in antiquity, whereas corridor **3** leading towards the *atrium* of the Casa del Torello may well have remained open.¹⁰⁹

Perhaps more interesting still for the present discussion are the courses of the drains leading from the two basins in *domus* V 1,3 (Figs. 27, 28). They constitute links between the *domus* and two of the neighbouring *tabernae*. One runs from the pool of court **d**. It passes beneath the threshold of the same doorway as the previously described water conduit, and continues into the *atrium*. It runs beneath the curbing

¹⁰⁷ The investigation was carried out by a group of three students supervised by Dr Renée Forsell. A further campaign (2009), led by Forsell and Thomas Staub, was carried out before this paper was submitted to the publisher. It has revealed new rather spectacular finds of more water structures, which will be presented later on in their own right. These finds do not question but in fact confirm some of the results presented in this paper.

¹⁰⁸ The broken state of this pipe, just as of the two on the west side of the *impluvium*, probably results from rash treatment during the 19th century excavations. These pipes are laid shallowly, whereas the much deeper position of the pipe entering from the Casa del Torello is fully preserved (Fig. 28). The south half of the *domus* was excavated in the 1830s. The documentation of the work is very brief.

¹⁰⁹ This corridor, closed today, was walled up in the 19th century; Fiorelli 1875, 421. Any evidence on the state of the doorway at the date of discovery has been destroyed by these works.



Fig. 29. Taberna V 1,30. Looking east. By Hans Thorwid.

of the east side of the *impluvium* and turns beneath its south curbing. It is connected to the cistern mouth situated in the same *impluvium* border. The main drain then turns south, towards and into the *fauces*, continues beneath the floor of this corridor and reappears inside the draw shaft that belongs to the cistern in the southwest corner of the neighbouring dyer's (V 1,4–5), situated immediately next to the wall that separates this shop from the entrance of *domus* V 1,3.¹¹⁰ The other drain leads from the *impluvium*, carrying its water westwards through the middle one (6) of the three *cubicula* that flank the *atrium* on its west side, continues below the boundary and enters *taberna* V 1,31, where it heads towards the cistern mouth that opens in the middle of the floor. Fieldwork in 2009 revealed that the drain does not end here.¹¹¹ As in the case of *domus* V 1,3, it is connected to a shaft leading down into the cistern but the main, built course of the drain bypasses the cistern mouth. The masonry-built drain continues towards the north, towards the space of *taberna* V 1,30.

¹¹⁰ I thank Prof. Borgard for bringing our attention to this fact, which encouraged us to empty the draw shaft and document the entrance of the pipe. This *officina infectoria* was studied by Philippe Borgard and his team in 2000, see Borgard 2002.

¹¹¹ Mats Holmlund is in charge of this part of our fieldwork and of its publication.

The close relationship between *tabernae* and *domus* is further enhanced by the fact that the standing remains of the second floor above the western *cubicula* of the *atrium* of *domus* V 1,3 contain two doorways opening towards the upper space of *tabernae* V 1,30 and V 1,31 respectively (Figs. 29–30), which means that all these spaces communicated. The second floor above the rooms of the *atrium* was apparently reserved for occupants entering from the *taberna*. The only tangible sign of a former staircase that has been found so far is a base situated in the front room of *taberna* V 1,31: no similar structure has been found in *domus* V 1,3 and work has not yet begun in *taberna* V 1,30. Clearly visible to view, however, is a latrine situated in a well-built vaulted niche (in *opus listatum*) that opens towards the space of the second floor, above the rear room of *taberna* V 1,30 (Figs. 29, 31). Its broad terracotta drain descends inside the boundary wall into a cesspit that also served a similar installation belonging to the neighbouring *taberna* V 1,31.

It may thus be presumed that *domus* V 1,3 and the *tabernae* were dependencies of the Casa del Torello, and presumably that the whole south part of the *insula* was a single property. Furthermore it should be remembered that there are good reasons to believe that these kinds of interrelationships formed a constant in the history of the premises, given that the whole southern part of the *insula* facing Via di Nola rests on the same stone foundation and shares the

same elaborately curbed pavement (Figs. 3, 39);¹¹² the lesser entities probably belonged to the orbit of the Casa del Torello from the start.¹¹³

In his assessment of results emerging from the close study of the Casa dei Postumii, Felix Pirson suggests a model for describing the relationship between house owner and shopkeepers that could fit the conditions in the south part of *insula* V 1. According to this model the relationship need not have been based primarily upon economic factors but rather on the patron's commitment to provide for his clients,¹¹⁴ a social, and not primarily economic, market-regulated exchange. The investment made to renovate the SW area of *insula* V 1 may well be interpreted as an act of private benevolence, an effort made in favour of socially dependent shopkeepers. Naturally, commercial interest may also have been in play. Future investigation of the *tabernae* might define their use, but at our present state of knowledge, it would seem as though they were not refurnished to make a (larger) profit through offering services targeting the future crowds attracted by the Central Baths.¹¹⁵ An alternative scenario according to which both *domus* V 1,3 and the second-storey rooms above *tabernae* V 1, 30–31 functioned as rental flats and *taberna* V 1,2 was used for some kind of commerce interesting for passers-by and future bathers should, of course, not be excluded. The aim of detailed description of how the premises of the southern part of *insula* V 1 are linked together is to demonstrate that the uniformity of the reconstructed façades of the *tabernae* may of course testify to the extent of an alleged AD 62/63 destruction and repair, but merit even more attention as evidence of social and legal cohesion. As such, they propagate the idea that the largely homogeneous and well-designed façades may well represent the effort of a single, economically solvent owner. The validity of this argument may be tested in a comparison with other parts of *insula* V 1, where repairs of old walls as a rule reveal less care and more patchwork solutions. These observations may also be taken

to question the alleged thoroughness of the destruction caused by the Neronian earthquake in this part of town, which takes us back to the discussion about the “proto-history” of the Central Baths.

Late masonry and the southern neighbourhood

The focus on legal and social conditions may similarly open a way to understand the establishment of the Central Baths in the city block (IX 4) immediately south of *insula* V 1, otherwise than just as a possibility grasped, following suit of particularly marked earthquake devastation in this specific area. Roger Ling has underlined how well the position of the Central Baths fits in with the sites chosen for the other intramural baths of Pompeii.¹¹⁶ Like them it is situated in a place likely to have many passers-by, close to the city centre and at the intersection of two of the city's major arteries. It should be added that in this particular case, the position of the bath was all the more ideal as *insula* IX 4 is situated along the main line of the water supply running straight from the *castellum aquae*, at an early and therefore assuredly well-provisioned point in the water supply system. The exceptionally abundant use of water documented in the private dwellings just north of it, in *insula* V 1, may be taken as evidence of the importance of this position in relation to the aqueduct line running down Via Vesuvio/Stabiana. The argument implying that this ideal position was made available for the Baths by chance, due to the effect of the earthquake, does not appear altogether convincing. If the post earthquake situation in *insula* V 1, such as it has been described above, may be used as comparison, it is no more convincing that all former buildings in *insula* IX 4 had suffered so serious and synchronic damage during the earthquake that they had to be demolished—and thereby opened for building the spacious new Baths.

We know little about the power of the institutional support available in the pursuit of a project of public interest such as the Central Baths, or for that matter who furnished the initiative and financed the works and how, or for what kind of gain.¹¹⁷ The importance of both private and public benevolence for the achievement of monumental enterprises in antiquity is well known. The creation of the Central

¹¹² This fact was first noticed and pointed out by Pirson 1999, 154–157, and Dickmann 1999, 80f.

¹¹³ For a similar situation concerning the *Insula* Arriana Polliana where it has been argued that the pre-eminence of the Casa di Pansa goes back at least to the mid-second century BC, see De Albentis 1989, 74–77.

¹¹⁴ Pirson 2005, 145.

¹¹⁵ The crossroad *thermopolium* (V 1,32.1) would have been the most likely to function in this way, whereas traditional workshop profiles were maintained for most of the others. The rather massive water supply provided to *tabernae* V 1,30 and 31 and the dyer's, V 1,4–5, mark their function as working areas and not primarily as service-oriented shops. The heavy stone-built boilers of the dyer's in V 1,4–5 (partially showing in Fig. 8) underline the specialised, high-quality craft conducted in these premises. On this craft, see Borgard 2002.

¹¹⁶ Ling 2005, 95.

¹¹⁷ Ray Laurence, in substantiating his argument on the testimony of ancient legal texts, points out that even buildings regarded by modern scholars as public, such as baths, may in fact have been privately owned and rented for profit to the city magistrates, who in turn provided the service to the community; Laurence 2007, 140.

Baths could belong to either category.¹¹⁸ One result of our interpretation of events taking place coevally in *insula* V 1 is that the possibility of a large private undertaking based on the power of a dominant patronus ruling over a larger area composed of several dependent properties is quite feasible. It could be that this city block was one of the traditional, big properties of Pompeii, such as the south part of *insula* V 1, or the Casa del Fauno or the *Insula* Arriana Polliana situated further on, closer to the city centre, along the same urban axis: Via di Nola/Fortuna/Terme. That the construction was undertaken after the earthquake of AD 62/63 remains plausible, considering how ancient building politics and benefaction worked in more general terms. The present aim is not to question the probability that the AD 62/63 earthquake triggered the grand bath project *per se*, but only to point out that the choice of space for the Baths in this particular part of town is not the kind of evidence from which one may safely draw conclusions about the condition of the buildings formerly standing in the area and even less for making it the prime reason why these buildings were replaced.¹¹⁹

It may, however, be stated with certainty that there were extensive building programmes undertaken in the last period of Pompeii, such as the Central Baths and the new commercial quarter linked to the Casa del Torello, to which should, of course, be added the changing face of the Forum in progress in AD 79.¹²⁰ These projects should hardly be considered as signs of declining city life, or dissolving social order. On the contrary, there is plentiful evidence to indicate that this was a period of rich city life, and, to cite Roger Ling again—this time touching upon its production of wall decorations, a golden age. The renovations made in the SW corner of *insula* V 1 confirm the picture. In this perspective it would seem as though the social structure seems to have become reaffirmed rather than weakened by the calamity. The old and established rules of patronage remain in vigour. Considering the development both in the southern part of *insula* V 1 and in the neighbouring *insula* IX 4, the patrons were apparently eager to show their efficiency in furnishing new, updated premises for work, lodging, well-being and pleasure.

¹¹⁸ The Forum Baths must have required some kind of expropriation when constructed. Although the period when Pompeii was turned into a Roman colony might have been politically more convenient for such power manifestations, it should not be excluded that it could also have occurred after the earthquake of AD 62/63 as well. For a discussion in Pompeian terms on expropriation versus piecemeal acquisition or the pre-eminence of the owner of a large dwelling over surrounding dependencies as a constant in the life of an estate, Ling 1997, 240–252; De Albentis, 74.6.

¹¹⁹ The future study of the bath by Natalie De Hahn and Kurt Wallat will assuredly provide new knowledge in the matter.

¹²⁰ Dobbins 1994.

Housing and social structure—Continuity and change

Material markers of dependence

Several means of tracing social status and property conditions, dependent and independent housing, have already been touched upon. The following is a presentation in its own right of the signs of dependence and interaction that may be read from the architecture through interrelated structures—mainly private infrastructures but in some cases also building techniques. The picture that emerges of big dwellings, dependencies and independent commercial establishments in *insula* V 1 corresponds, of course, to the legal situation at the moment of the eruption. But a deeper chronological perspective can also be gained. Many of the features to be reviewed in the following were considerably older. Some, such as the elaboration of the pavements, changed in a way that permits to follow the changing fortune of the properties over time, others, such as the opening up or cutting off of means of communication between the big dwellings of the *insula* interior and the street-front establishments, mark both local history and trends that may be of a far more general importance, assumingly both to the social history of Pompeii and the Roman world beyond.

The following presentation is also an attempt to present an inverse perspective. The spotlight that previously was aimed on the big dwellings will instead be turned on the conditions ruling life in the nineteen *tabernae* of *insula* V 1. For the sake of comparison the two larger, and without doubt independent, commercial establishments, the inn (*caupona*) into which the old, Northwest Building had been transformed and the bakery, will also enter the discussion.

The example of the *insula* Tauri Aenei

The Latin translation of the modern name given to the main house in the heading above is a somewhat light-hearted turn not meant to suggest a new name,¹²¹ but rather to underline that the sphere of the Casa del Torello should be seen as the kind of grouping that merited the denomination *insula* in Roman law: not an urban area delimited by four surrounding streets but a property block, encompassing

¹²¹ In the cases where the ancient name of a Pompeian *insula*—or *praedia*—has come down to us, it relates to the name of the owner. Although a name has come down in connection with the Casa del Torello, we preferred not to use it in our heading, because the reason for assuming that it belonged to a *patronus* of this estate is very feeble. The name in question is that of T. Pontius Successus, inscribed on a bronze marker recovered in the *atrium* area.

houses of many different sizes and functions.¹²² Such enlarged properties will be labelled “estates” in the following. Largest in *insula* V 1, the Torello estate will be taken up first. The cohesion of this estate is marked by a panoply of varied material remains that indicate interrelation and interaction over boundaries, which at first glance could be understood as property lines: therefore, it furnishes the best starting point for interpreting the occurrence (or lack) of similar markers of dependency in other parts of the city block. Unevenly distributed but occurring in one way or another in all establishments around the patron’s house, the following features may be noted: common pavement curbing, common foundation, common façade, drains and aqueduct inlets passing from one house to another beneath or through boundary walls and, of course, intercommunicating doorways.

Already 19th-century scholarship showed that pavements in front of adjoining houses could vary so much that it can be concluded that their construction was left to the individual owners of abutting properties.¹²³ The curb stones were chosen in diverging sizes or kinds so that each manner of curbing corresponded in extent to that of the abutting property beyond. As, we will see, changes in property conditions were likely to entail changes in pavement curbing as well as were major changes in the fortune of a street—such as the paving of Via Vesuvio.

Accordingly it comes as no surprise that the uniform pavements in front of the Casa del Torello and its dependencies extend in space well beyond the street front of the main dwelling and its two front shops. In fact, one kind of pavement curbing frames the space of all establishments flanking Via Vesuvio from the Casa di Tofelanus Valens V 1,28 to the SW street corner (Fig. 7), another follows the Via di Nola from this same street corner to *taberna* V 1,8, south east extreme of this *insula* (Figs. 3, 39). All the establishments west and south of the Casa del Torello also share several of the other structures interpreted as markers of ownership, dependency and interaction. Some have already been described in other contexts above, but will be repeated for a full summary in the following.

All premises facing onto Via di Nola stand on the same kind of foundation (Figs. 3, 39), houses and shops alike. It could well be that originally an overreaching monumental design dictated the formation of the whole street front instead of, as today, merely the eastern part of the façade,

from *taberna* V 1,8 at the east corner to the *fauces* of *domus* V 1,3. In any case, it can safely be stated that the façade extended somewhat further west than today, encompassing both doorposts of *domus* V 1,3 (Fig. 8).

Behind the stately Via di Nola façade, the true street-front shops are *tabernae* V 1,6 and V 1,8, separating the patron’s dwelling from the commotion of the street. In V 1,8 no signs of interconnection with the house have been found, whereas *taberna* V 1,6, on the other side of the *fauces*, has a doorway towards the interior, i.e., towards the *atrium* of the main house.

Further west, still sharing the stately façade, are another two shops: V 1,4 and V 1,5. It should be noted that the pavement curbing in front of these two parts of the same business differ in its state of preservation. In front of *taberna* V 1,5 it is very well preserved, sharing the same appearance as the original, undisturbed curbing in front of the main house and the two front shops flanking its *fauces* (Fig. 3). This situation changes completely from a point corresponding to the dividing wall between the east and the west of the dyer’s two shops. Thereafter starts a very worn and substantially repaired pavement curbing (Fig. 39), often having broken curb stones, smaller than the original ones and sometimes even diverging as to the kind of stone in use. Still the homogeneity of the pavement is marked by the supplementary, rounded stones, which at regular intervals are positioned into the street, presumably both functional—meant to ward off traffic and protect the pavement from passing cart wheels—and aesthetic.¹²⁴ This irregular, repaired pavement curbing becomes the norm up to the SW corner of the *insula*. In spite of this and although lacking a communicating doorway in between, the two *tabernae* V 1,4 and V 1,5 were assuredly parts of the same business—at least in the late period. Both are furnished with boilers (Fig. 8), identifying the premises as *officina infectoria*, high quality dyers.¹²⁵ That their actual furnishing belongs to the late period in its actual state is witnessed by the extensive use of brick and *opus listatum* for the interior partition walls. Although the rear shops have no doorway into the dwelling beyond, their water supply reveals the dependent status of the business: they received their water from a pool in the inner part of *domus* V 1,3 in which rainfall and aqueduct water was mixed, the latter supplied from the Casa del Torello (Fig. 27).

For the two front shops further west, no structures passing the boundary towards the *insula* interior have been

¹²² For a summary of what Roman law says about the pattern of urban ownership and its definitions, see Wallace-Hadrill 1994, 131–134.

¹²³ This fact was already pointed out by Mau in his Pompeii manual (1907, 228). The phenomenon has recently been investigated more fully in Saliou 1999.

¹²⁴ The same kind of device characterises, for instance, the pavement in front of the Casa del Fauno.

¹²⁵ Borgard 2002: both on the dyer’s craft in general and this *officina* in particular.



Fig. 30. Taberna V 1,31. Looking east. Note the two structures inside this space: the base of the staircase leading to the second storey situated against the north wall and the cistern mouth. The mouth itself is unfortunately mostly covered by the fence, but the cover stone demonstrates its central position in the floor of the front shop. By Hans Thörnwid.

reported as yet. Further north, however, the remaining four establishments with openings towards Via Vesuvio all shared in the water management system aimed for and controlled from the Casa del Torello.

As already described in more detail earlier in this study, the cistern of *taberna* V 1,31 was fed with overflow water from the *impluvium* of *domus* V 1,3—in its turn provisioned by aqueduct water from distribution boxes (found during the field campaign of 2009) in the kitchen of the Casa del Torello.¹²⁶ When needed, water could also be carried further on: the conduit continues towards an as yet unknown destination via or inside the neighbouring *taberna* V 1,30. Access to the second-floor flat(s) including space above the *atrium* *cubicula* of *domus* V 1,3 (Figs. 29–30) and the vaulted privy niche above V 1,30 (Fig. 31) was presumably assured by means of the only staircase documented so far, in V 1,31.

Further north, the high-capacity inlet leading aqueduct water to the big *nymphaeum* of the peristyle in the Casa del Torello was drawn beneath the floors of *taberna* V 1,29. Enough of it has been excavated in the southern rooms **f** and **b** of the Casa di Tofelanus Valens (V 1,28) to determine its course beneath preserved floors further south

(Fig. 27). The oblique course indicates that the water line was drawn along the shortest possible route—beneath the floor of the dependencies—from the second water tower of the Via Vesuvio/Stabiana/Abbondanza line, situated at the intersection between Via Vesuvio and Via di Nola.¹²⁷

This main water inlet as well as a more normally sized subsidiary pipe cross the border between the Casa di Tofelanus Valens and the kitchen of the Casa del Torello, respectively beneath and beside the thin rear wall of a niche situated in the east boundary of the dependent house. Seen from this side, the niche looks very much like a walled-up doorway, undetectable, though, on the kitchen side of the wall. Thomas Staub has drawn attention to a parallel occurrence close by. In this case in a partition wall within the Casa del Torello: a water inlet entered the bath suite of the Casa del Torello also through the rear wall of a niche, this time situated in the east wall of the *caldarium*—thus, in the partition between this room and the corridor leading

¹²⁶ Very well preserved pieces of all kinds of plumbing were found during fieldwork in 2009. They will be published and discussed with more detail by T. Staub.

¹²⁷ The water inlets serving the Casa del Torello, found during the field campaign of 2009, will be published by R. Forsell and T. Staub. Among the pipe imprints seen in the calcium deposit covering large parts of water tower no. 2 (Fig. 13), Staub has been able to spot one of larger dimensions than the others. The pipe that produced this imprint most likely corresponded to the high-capacity inlet discovered *in situ* in the Casa di Tofelanus Valens as well as in the kitchen and peristyle areas of the Casa del Torello.



Fig. 31. Rear room of taberna V 1,30 with second-storey privy niche in the SE corner. By Hans Thornwid.

towards the bath suite. This time the niche was never filled in but remained a functional feature, housing a basin in the *caldarium*.

The two niches merit consideration together with the relieving arches set into solid walls (Fig. 18), mentioned above in this study.¹²⁸ Evidently, all these structures were engineered in order to avoid a heavy load on particular parts of the walls—either situated above points where foundations may have been fragile and/or where the elevation above involved more than a ground-floor structure or, as here, at points chosen for the passage of water pipes. Like the niches, the relieving arches recur in the dependencies and in the Casa del Torello itself, but nowhere else in *insula* V 1. They may, thus, be seen as characteristic builder's devices, indicat-

ing in yet another way that all units in this part of *insula* V 1 were under single direction (and one ownership). These signs of one and the same constructor's skills that recur in both house and dependencies strengthen the hypothesis of common ownership of the whole area. Looser kinds of property rights such as servitudes can no doubt be disregarded even when a lesser degree of dependency could be conjectured, such as when a water inlet was allowed to pass beneath the floor of a neighbour.¹²⁹

Doorways communicating between the main house and its dependencies are rare within the Torello estate despite the many ways in which interrelation can be evidenced (as shown above). This situation is all the more surprising when compared to the frequency of such doorways in other parts of this city block. In fact, there are only three doorways relating the main house to its dependencies (nine street-front shops, the Casa di Tofelanus Valens and *domus* V 1,3): two insured communication between the main house and the appended *domus* V 1,3, the third, between the main house and its western front shop, V 1,6. On top of this surprising scarcity of direct communication, two of three existing doorways were found walled off when they were unearthed in the 1830s. Whether the situation of the third was the same or not can no longer be determined as no evidence remains of its state at the discovery. It is walled off today, but with a fill, made probably entirely in the 19th century, no doubt in order to ensure that tourists entered the Casa del Torello by its main gate only (the doorway in question is the one that offered passage between the main and the lesser *atrium* of the estate).¹³⁰

The doorway that once served as passageway between the kitchen of the Casa del Torello and the *atrium* of V 1,3 preserves its ancient fill. It is obvious that it was walled up late in the life of the estate. How late will hopefully result by means of future, detailed study in which the fill is contextualised in relation to other recent masonry in the area. The rear doorway of *taberna* V 1,6, on the other hand, has only a modern wooden gate today but one may still conclude that it was walled up in antiquity because an ancient staircase base is built in front of it, blocking the passage. According to the observations made by Thomas Staub, the threshold found *in situ* is not equipped with the necessary cuttings needed to serve a functioning door and was probably a mock threshold set into the floor to maintain appearances

¹²⁸ See above, the discussion in "Late masonry, relieving arches and foundation fragility" in the previous chapter on the post-earthquake period in *insula* V 1.

¹²⁹ Servitudes concerning transfer of water were well-known issues in Roman law, but the lawyers never treat applications in urban contexts. Brun 2000, particularly 582–585.

¹³⁰ The Casa del Torello is mentioned among the houses selected for the obligatory tour of Pompeii in the middle of the 19th century by Théophile Gauthier in his famous short novel "Arria Marcella. Souvenir de Pompéi" (1852).

when the doorway was walled off. That the doorway, thus transformed into a blind door, was probably conceived as a functioning means of communication in the original design, is suggested by the fact that the actual threshold does not belong to the earliest types in this house, whereas the doorway was part of the original design.¹³¹

The buffer position of *domus* V 1,3 occupying a large portion of space between the patron's dwelling and the Via Vesuvio shops may partly explain the low number of passageways in the Torello estate. But it does not explain the lack of doorways between the *atrium* of V 1,3 and its own two front shops. The late construction of the rear boundary walls belonging to the dependencies in this area may furnish a better explanation. West of V 1,6, all boundary walls belong to a late period of Pompeian city life. They have not been sufficiently studied yet, but at least some share characteristics that at first sight leads to believe that they are contemporary. The rubble masonry has a similar, general appearance. In several places it is characterised by a wall facing that consists of stones laid in arched courses. It could well be that future detailed study of the lower parts of the walls of the eight establishments in question (V 1, 28–32.1, V 1,1–2 and V 1,4–5) may yield indications of an earlier situation, including doorways. But at the present stage of our investigations, we cannot say whether the allegedly independent design of these establishments was part of the late remodelling scheme or whether it was an already pre-existing characteristic of the dependencies of the Casa del Torello. It is also too early to decide with certainty whether there were one or two late building phases for these dependencies. One could conjecture a first redevelopment contemporary with the introduction of aqueduct water in the early Imperial period and a second reconstruction phase in Flavian days, indicated by the extensive use of different kinds of brick masonry for the front parts of the establishments.

However, of special importance for the following discussion is the apparent confirmation of a general tendency to seal off passages and doorways, exemplified in the closed-up character of all the late, rebuilt architecture of the Torello estate and the blocking of earlier existing communications (one or both) between the main house and *domus* V 1,3, as well as to the old, original front shop V 1,6. It seems safe to present the architecture of the SW corner as confirmation that direct communication between front shop and main house was not in fashion in the late period of Pompeian city life.

The Via Vesuvio street front

The estate of Caecilius Iucundus

A property situation similar to that of the Casa del Torello was presumably valid also for the two houses that were later joined to become the Casa di Caecilius Iucundus and their four front shops. It is obvious that the shops were regarded as dependencies in the original design since all were equipped with doorways communicating with the *atria* beyond. The North House has three doorways like this, all three of which were walled off at the moment of the eruption. Two were meant to communicate with the traditional front shops situated on each side of the *fauces* whereas the third, situated in the rear part of the *atrium*, had permitted passage to the house's north wing, i.e., to the large *taberna* V 1,20–21 (for a plan of the premises, see *Figs. 20, 36*). Both of the South House's front shops are open towards the *atrium* interior today, but as seen in old photographs and the 19th-century cork model in the Museo Nazionale of Naples, at least one of the interrelating doorways, the one situated in the rear wall of *taberna* V 1,25, had a partial masonry fill when excavated in the 1870s. It cannot be excluded that the same may have been the case for the similarly situated doorway of *taberna* V 1,27. There is a perfectly plausible reason for why one would have cleared the ancient blocking-up of the rear doorways of these two shops in the 19th century: the wish to give tourists passing by the broadest viewing axis possible—through three gates instead of just one—into the *atrium* of the South House and its magnificent mosaic floor (*Fig. 32*). In AD 79 the only other examples of *tabernae* onto Via Vesuvio that preserved open rear doorways are those that belong to the establishments that functioned entirely for commercial purposes at the moment of the eruption: the *caupona* (V 1,13), the bakery and *taberna* V 1,20–21.

The curbing of the pavement in front of the Casa di Caecilius Iucundus consists of a line of basalt flags (*Figs. 32–33*), marking the space in front of the two entrances and the four front shops. A manifest contrast is seen at the boundary with the Casa di Tofelanus Valens, from here and the whole way to the SW street corner Sarno limestone dominates a pavement curbing in which characteristically one square basalt block inserted at more or less regular intervals breaks the monotony of the larger limestone flags (*Fig. 7*). The homogeneity of the basalt line by the estate of Caecilius Iucundus is interrupted again up to the north by Sarno limestone marking entrance V 1,21 (*Figs. 33–34*). This change in material used for the curbing may be understood as a signal that the old north wing of *domus* V 1,23, (the North House) had been detached probably already on the eve of the creation of the double *atrium* residence of

¹³¹ For the typology of thresholds in *insula* V 1, see Staub 2010 and his forthcoming dissertation.



Fig. 32. Entrance to the South House of Caecilius Iucundus. Note the rear doorway towards the atrium creating a supplementary view of the mosaic from taberna V 1,25. This doorway was walled up in antiquity and cleared in the 19th century. By Hans Thorvid.

Caecilius Iucundus. It could be conjectured that the two Sarno limestone flags in front of entrance V 1,21 were either put there by the later owner, or were reminiscent of the pavement curbing that once belonged to *domus* V 1,23 and its three dependencies, *tabernae* V 1,20–22 and 24. As there is a return to basalt curbing in front of the wider opening of V 1,20, this hypothetical identity marker would have consisted of longer series of basalt sections alternating with one or two Sarno blocks (Figs. 33–34).

The cohesion of the double *atrium* estate and its four front shops is demonstrated in further ways. The water inlet passed into the residence beneath the floor of the northernmost shop V 1,22, whereas the activities in the southernmost, V 1,27, profited from overflow distributed from the *impluvium* beyond. The latter situation may also have been valid for V 1,22, where a built feature in a similar position, in front of the doorway towards the *atrium* and close to the partition towards the *fauces*,¹³² may indicate a cistern (Fig. 14) fed from the *atrium impluvium* although the water inlet has not been found as yet. The find of a small amphora inscribed with a text stating that it (or rather its

contents) was a gift to Caecilius Iucundus from a certain Sextus Metellus further underlines the dependent state of one of the two *tabernae* in front of the South House. That it cannot be decided with certainty in which of them it was found is unfortunate,¹³³ but does not invalidate the importance of this find for the general discussion on interconnection between front shops (walled off or not) and main house behind.

At some time in the history of the house the water supplied to *taberna* V 1, 27 from the main house was interrupted. The cistern that it flowed into, situated just inside the rear doorway that communicated with the *atrium*, went out of use and was filled in, then sealed with a *cocciopesto* floor.¹³⁴ The people working in this *taberna* in the late period used another cistern, situated close to the shop opening instead (Fig. 14). It was filled with rainfall from the roof by means of a terracotta pipe integrated in the south wall. The new source for the water supply in *taberna* V 1,27 need not have had anything to do with the legal status of the workshop. Safeguarding the precious mosaic floor of the

¹³² For the filled-in cistern found in *taberna* V 1,22, see Karivieri & Forsell 2009-01-22, www.pompejiprojektet.se/insula.php, V 1,22, *Taberna* - installations in floor.

¹³³ The early descriptions of the find (Mau, Viola) do not agree regarding which *taberna*, V 1,25 or V 1,27, the find was made in; Dexter 1974, 225.

¹³⁴ www.pompejiprojektet.se/insula.php, V 1,27, *Taberna* - Floor.



Fig. 33. Via Vesuvio street front showing taberna V 1,20–21, the North House of Caecilius Iucundus with front shops and the high Samnite entrances of the South House and its flanking front shops. By Hans Thorwid.



Fig. 34. Street front of taberna V 1,20–21. Note the limestone curbing in front of entrance 21, possibly a signal that the upper-storey staircase appears beyond. By Hans Thorwid.



Fig. 35. Inner rooms of taberna V 1,20–21: a. rooms **d** and **f**; b. Room **d** and doorway to **e** (note the downpipe from the second storey latrine in the w wall); c. cistern and drain in room **d**; d. Room **f** looking west. By Henrik Boman.

atrium may have been a reason to reduce the number of drains beneath it. During the excavation an alternative inlet to the old cistern was found entering from the north, thus probably bifurcating from the main *impluvium* drain that exited the house by the *fauces*. During the excavation in 2006 it could also be ascertained that this workshop, probably functioning as a tanner's, was still active in AD 79 as both cistern and basin beside it were full of lapilli from the eruption when rediscovered.¹³⁵

¹³⁵ Karivieri & Forsell 2008, 107. The find in the basin of a residue (aluminium and potassium) which fits the chemical composition of alum, a mordant used in dyeing, suggests that it may have been used for this purpose, although there is no sign of heaters, also necessary for the dyeing process (see *tabernae* V 1,4–5). For details on this process, see Borgard 2002. Alum may also be used for tanning.

Taberna V 1,20–21

The presumed independent status of *taberna* V 1,20–21 in the late period (after the creation of the double *atrium* house of Caecilius Iucundus) suggested by the pavement curbing may also be considered in the light of its self-sufficiency in water management. Its supply and drainage system consisted of three elements (Figs. 20, 35a–d): a narrow, open space (**f**), functioning as a combined rainfall collector (walls and floor are covered with hydraulic plaster) and light well (it illuminated the kitchen area **d** through a high doorway and room **e**, contiguous to the south, through a window), a masonry-built draw shaft situated in the kitchen (**d**) close to the opening of room **f**, and a drain that permitted two alternative ways of handling the water collected in **f** (it could be made to enter the draw shaft and the cistern beneath or, bypassing it, led through a drain through corridor **c** and discarded in the street).

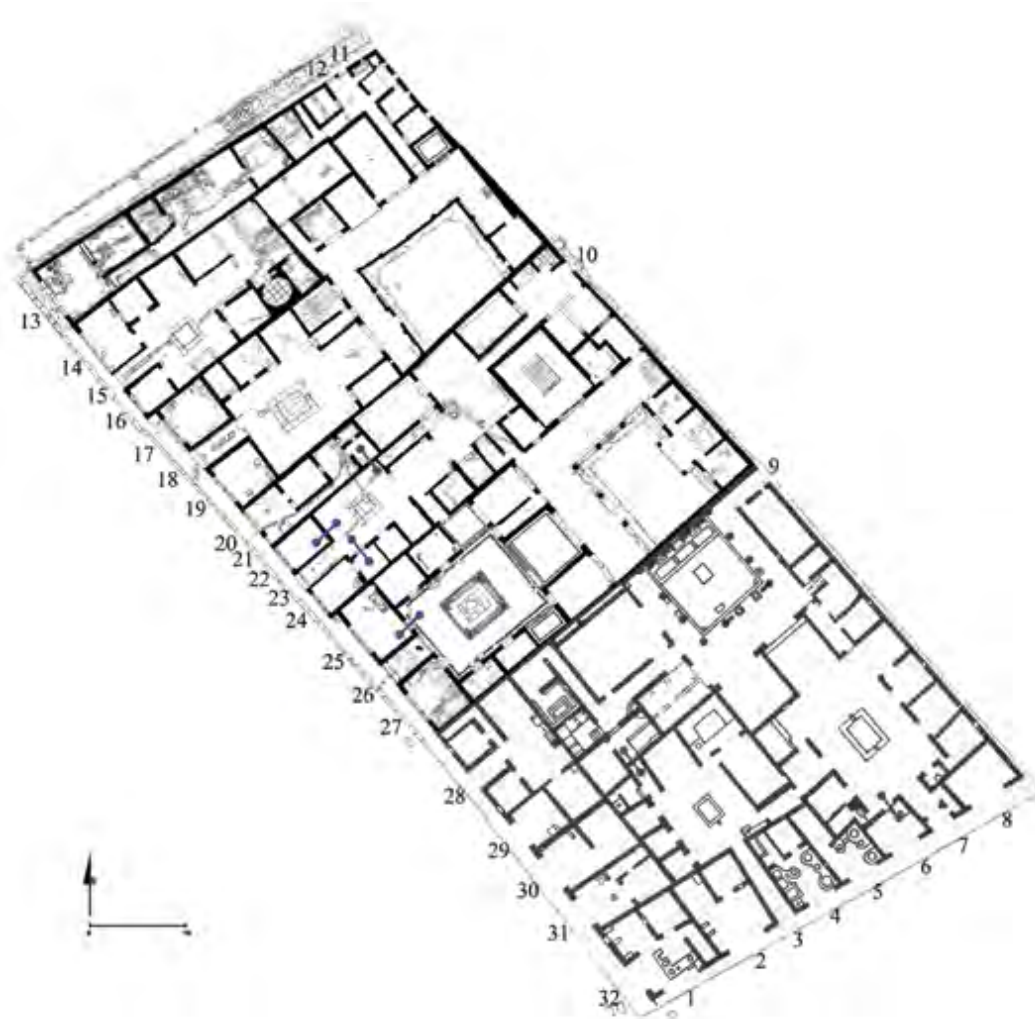


Fig. 36. Plan of the double atrium house of Caecilius Iucundus and taberna V 1,20–21, with indications for doors that were walled up in antiquity and the position of the cesspit and down-drain of the second-storey latrine. By Ezzequiel Pinto Guillaume & Henrik Boman.

The size of the draw shaft indicates that it was designed for use with a substantial cistern. The inner wall of the shaft is set with holes, some of which, if not all, were presumably meant to be used as footholds to descend into the cistern for maintenance.¹³⁶ This cistern must be an original structure since we may exclude the possibility that a large container could be dug beneath the standing structures of the narrow room. It could well be that the shaft was originally made as an alternative way to draw water from the same cistern as the draw shaft crowned by a puteal in the garden area of the North House of Caecilius Iucundus (Fig. 14).¹³⁷ This

cistern may subsequently have been divided in two. It may be noted that the garden area of the North House was equipped with a new downpipe descending from the roof of the dining room (k), directly neighbouring space f intended for rain collecting in taberna V 1,20–21. It could be that it was needed when the North House was cut from its old west wing and its rain collecting shaft. The downpipe is assuredly a relatively late measure as it is made of lead and is attached to a wall portion built in *opus listatum* masonry.

The course of the drain suggests that it was set up in the later life of taberna 20–21 (Fig. 20, 36). It does not go to the street in a straight line but circumvents both old and considerably younger structures. Instead of passing through the rear shop—the floor of which is situated at a lower level, almost half a metre beneath the floor of

¹³⁶ For illustration and a discussion, see Leander Touati 2008, fig 4; www.pompejiprojektet.se, V 1,20–21 Taberna, Room d - Cistern.

¹³⁷ Double draw shafts were not an uncommon feature in Samnite architecture; Sear 2006, figs. 3, 22, 31.

the kitchen¹³⁸—it deviates towards the south and passes through the corridor. It then turns north again to join the street via the main shop opening (V 1,20). In this way it avoids the base for the staircase that led to an upper-storey flat accessed through entrance 21, the late date of which is indicated by the brick pillar that functioned as a partition between openings 20 and 21 (Fig. 36) and presumably also by the typology of the structure itself (staircases with direct access from the street to second-storey flats are presumably late in Pompeian architecture).¹³⁹

It is impossible to state what the “independence” that we read into the observed alterations made to the architecture of *taberna* V 1,20–21 may have meant in legal terms: true independent ownership or some looser kind of attachment to the Casa di Caecilius Iucundus. Put in terms of the well-being offered to its user, a comparison with the dependent *taberna* V 1,31, belonging to the estate of the Casa del Torello, is fruitful. It reveals that there is little to support the idea that independent status for a *taberna* meant better living conditions for its users than would that of a dependent facility: in fact, it could be just the opposite, considering the rather old-fashioned and uncomfortable appearance of the former and the updated architecture of the latter, including also a rather nice wall decoration in a Fourth-Style tapestry pattern.¹⁴⁰ Both workshops contain cisterns and latrines. While water was furnished to the cistern in V 1,31 from the big water-collecting facilities of the master house, *taberna* V 1,20–21 was dependent on natural rainfall.¹⁴¹ The risk of periodic overflows of water, not to mention the racket every time it rained, would have caused discomfort for the inhabitants. The possibilities for allowing privacy and hygiene also differed. In the case of V 1,31, the privy is placed in the innermost northeast corner of the *taberna*, inserted into its vaulted niche and separated from the neighbouring room by means of a solid partition (Fig. 30). In V 1,20–21 the latrine was placed in the kitchen area (Fig. 17) and no solid partition separating kitchen functions

from latrine can be seen.¹⁴² As in the former example, this cesspit also received refuse from the upper storey through a terracotta pipe (Fig. 35b).

The Casa degli Epigrammi greci and its street fronts

Other possibly independent *tabernae* are situated further north. The only part in the whole circumference of *insula* V1 where pavement curbing cannot be related to house boundaries—and thereby to property lines—is in front of the Casa degli Epigrammi greci and the two *tabernae* that flank its *fauces* (V 1,17.19). A line of largely similar basalt stones runs from the boundary of the bakery up north to a point corresponding to an approximate mid position in front of the southern front shop, V 1,19, where it is broken up by two Sarno stones (the southernmore visible in Fig. 33). A bomb hit reported to have damaged the area in the 1940s followed by inattentive restoration may explain this irregularity.¹⁴³ On the other hand, scrutiny suggests that it was the northern part of this street front that was hit by the bomb, not the space approaching *taberna* V 1,19.¹⁴⁴ By means of the cover stones protecting it, the course of the *impluvium* drain exiting the *fauces* of the Casa degli Epigrammi greci may easily be spotted as it crosses the pavement outside the house; the stones are obviously in good condition, implying that the pavement in front of the *fauces* and, further south, *taberna* V 1,19, suffered little damage, if any. It may also be noted that the drain follows an oblique southbound line over the pavement. It reaches the street close to the northern boundary of *taberna* V 1,19, albeit without intruding into that space (Fig. 14).

¹⁴² Room d, housing latrine, cistern and kitchen, has been disturbed since the excavation in the 1870s. The remains of the kitchen, an oven built against the N wall described by Mau, are no longer detectable. The former existence of a solid partition wall separating kitchen and latrine may however be ruled out after the recent investigation of the area. The use of screens made of perishable material may not be excluded, of course.

¹⁴³ The entrance of the Casa degli Epigrammi greci was seriously damaged; pers. comm. from Margareta Staub Gierow after consulting the documents concerning the restoration history of the Casa degli Epigrammi greci available at the *Soprintendenza*.

¹⁴⁴ The southern doorpost of shop opening V 1,16 (the south front shop of the bakery) has been subjected to erroneous restoration. The cubic capital placed there (Fig. 6) does not belong there but should more rightly belong to the north doorpost (ruined) of the main entrance of the bakery; Boman & Nilsson 2006/2007, 153. The use of a single, obliquely positioned curb stone to compensate for the fact that the street narrows down just south of the boundary wall of the bakery also seems odd, especially when compared to how the pavement curbing is handled on the opposite side of Via Vesuvio in relation to a similar change in street width (in front of VI 14,30). There it resulted in a smooth oblique adaptation of the pavement, working over a longer section.

¹³⁸ Boman & Nilsson, 2008-04-09, www.pompeijoprojektet.se/insula.php, V 1,20–21, *Taberna*, Room b; Room b - Floor.

¹³⁹ The Imperial date of the addition of second-storey flats on street fronts above workshops and service areas has also been noticed in *insula* VI 1; Jones & Robinson 2004. See also Ling 1997, 246, on the evidence from the Casa del Menandro, and on *insula* VI 3, Carrocci *et al.* 1990, 216.

¹⁴⁰ Mats Holmlund is in charge of the close study of *taberna* V 1,31. For the wall decoration, see PPM.

¹⁴¹ For a description of the architecture, Boman & Nilsson 2006/2007a, 139–143, figs. 3–6.

Although the two *tabernae*, V 1,17 and V 1,19, have not as yet been properly investigated beneath floor level, a cistern has been reported in V 1,19. It was apparently unconnected to the *impluvium* of the Casa degli Epigrammi greci. No connecting conduit has been found and there is no perforation in the *impluvium* basin that could correspond to a drain exiting in the direction of the *taberna*. The location of the cistern, approximately on mid-axis of the room and close by the south wall, was not the closest possible to the *impluvium* (or *impluvium* drain of the *fauces*), as were those placements chosen for two cisterns housed close to *atrium* and *fauces* boundaries in the front shops belonging to the Casa di Caecilius Iucundus (Fig. 14). Obviously this cistern was not meant to be fed from the *atrium* but from the roof or manually.

It may also be noted that the aqueduct line of the Casa degli Epigrammi greci enters the house through the *fauces* (not by way of the *tabernae* as in the cases of the Casa del Torello and the Casa di Caecilius Iucundus) and that there are no doorways linking front shops with the *atrium* area beyond (Fig. 14). It may well be that the front shops in front of the Casa degli Epigrammi greci were legally independent from the dwelling beyond. At least it seems safe to suggest some looser kind of dependency than that suggested by front shops with rear doorways. This rather unexpected situation may have its historical explanation.

As pointed out by Margareta Staub Gierow in the preliminary publication, the oldest main entrance to the Casa degli Epigrammi greci was not situated on Via Vesuvio but towards the north, on Vicolo delle Nozze d'Argento, where an old, wide entrance had been partitioned into two in the late period—one functioning as *posticum* to the house, the other leading towards a second-storey apartment.¹⁴⁵ Similarly, the nice basalt curbing of the pavement in front of its northern façade undoubtedly witnesses to its past glory (Fig. 5). It may be contrasted to the conditions around the corner where the east façade of the Casa is abutted directly by the mud street, with no street paving, no entrances, and no pavement on this side of the house.

That Vicolo delle Nozze d'Argento was more of a main street in the old period, before it was definitely superseded in importance by Via Vesuvio, comes as no great surprise, considering that the largest estate of the neighbourhood, the Casa delle Nozze d'Argento, has its main entrance

opening onto it.¹⁴⁶ The earlier importance of this artery may also be deduced from the presence of two walled-up doorways in the northern façade of *insula* V 1—a wide one leading into the rear space of the Northwest Building (V 1,13) and nearby, a narrow one leading into the (future) service area of the Casa degli Epigrammi greci—and by the fact that the pavement curbing running parallel to the northern façade of the Northwest Building is very different from the others reviewed up to now (Fig. 5). In spite of its deliberate elaboration—the curbing consists of two kinds of stone alternating at more or less regular intervals (Fig. 5a)—it still has an aura of unfamiliar rusticity due to the rough, bulging faces of the curb stones. Excavation in the street has confirmed that without a doubt it was designed not for the *caupona* but for the property that we have called the Northwest Building, in the early days of *insula* V 1—perhaps even prior to the main urbanisation period.¹⁴⁷ It is clearly of another age than the pavement in front of the opening of the same building onto Via Vesuvio. That wide pavement, curbed with smooth basalt flags (Fig. 6), was surely made in connection with the paving of Via Vesuvio, at a date when the old northwest property had probably long before been divided in two: the narrow *caupona* and the small *atrium* house, later to become a bakery.

The reconstruction of the history of the fusing of the two parts that constitute the Casa degli Epigrammi greci has not been presented in full detail yet, but from the exterior evidence reviewed here, it would seem as though the *fauces* onto Via Vesuvio did not become the main entrance of a large house until a relatively late date. As the Casa degli Epigrammi greci underwent an important rebuilding phase in the early second half of the first century BC,¹⁴⁸ it is tempting to suggest that the orientation of the new

¹⁴⁶ On this estate, its size and old age, see Ehrhardt 2004. Part of the street front north of Vicolo delle Nozze d'Argento and all land north-east of the Casa delle Nozze d'Argento belongs to the unexcavated parts of Pompeii. Several other large, old houses west of Via Vesuvio had their main entrances onto the prolongation on this same artery.

¹⁴⁷ The curbing consists of limestone blocks with standing lava-stones at fairly regular intervals. In front of the doorway there is a wider interval as the lava-stones flank the opening, undoubtedly to facilitate access through the northern entrance into the building. As shown by excavation, when in use this opening belonged to a lower street level; Boman 2008, 87–90. This implies that both pavement and curbing was lifted when the Vicolo became paved. At this moment it was apparently no longer a street of main importance in the eyes of the owner of the Northwest Building, which is probably why the changed aspect of the street did not entail new curb stones, more comfortable for the passers-by, only an adjustment of the old ones. Another possibility is that the house itself had lost some of its former importance. A comprehensive presentation of the pavements of *insula* V 1 and a discussion on the reasons for their different appearances will be presented elsewhere by the present author.

¹⁴⁸ C. 40 BC; Staub Gierow 2006/2007, 108–109.

¹⁴⁵ Staub Gierow 2006/2007, 110–111.

house was determined then. Its main entrance now opened towards the recently paved Via Vesuvio. At the same moment the (assumed independent) front shops may have been claimed by the owner of the redeveloped dwelling—although with what success is difficult to say. The pavement gives a half-hearted testimony—the curbing in front of the *fauces* consists of long slender flags that intrude into the space of the two *tabernae* but do not cover the whole width of their street fronts.

Bakery and *caupona*

The curbing indicates that the two properties were already separated at the moment when the present pavement was constructed: in both cases the curbing consists of basalt flags, but as they differ in size from one property to the other they are clear markers of boundary lines in spite of the discreet way of announcing this (Fig. 6). The *atrium* house had a closed façade, with no front shops until late, presumably not until it was transformed into a bakery. It had its own water supply, cistern and drainage system, based on rainfall and no doubt a compluviate roofing arrangement. The *caupona* had neither *impluvium* nor aqueduct line, but still a water supply of its own. A terracotta pipe in the west wall of the kitchen, its innermost room, probably functioned as a downpipe from the roof.¹⁴⁹ The water was led through a conduit beneath the floor to a cistern mouth situated in a working bench in the next room (Fig. 14). The deep well located in the innermost room of the *caupona* may have functioned as a complement for water collection, although it seems as if it was no longer in use during the last period of life in this house.¹⁵⁰ The fact that the *caupona* lacks an overflow drain indicates that the water level of the cistern was regulated by human control—in this case perhaps a system for closing off the low-water-capacity downpipe, and of course, through the use of the simplest but also most labourious of all control systems, buckets.

Changing patterns in household life and “lower-class housing”

Walling off

In the last days of Pompeii most working premises of the *insula* V 1 street fronts were separated from the life of the

atria. The common occurrences of doorways (albeit mostly walled-up) clearly demonstrate that the division of *tabernae* and *atria* was originally not a rule. On the contrary, the early days of urbanisation seems to have been governed by the idea that a *taberna* should communicate with the *atrium* beyond. Among the ten front shops of *insula* V 1 that we may consider as part of the same original design as the houses beyond,¹⁵¹ only three lack rear doorways: the two shops in front of the Casa degli Epigrammi greci and the easternmost of the Casa del Torello (openings 17, 19 and 8). Among the old, traditional front shops situated in front of *atrium* houses (nine of them referred to above since the opening of the *caupona* is not included in the present definition), only the southernmost of the dependencies belonging to the Casa di Caecilius Iucundus (*taberna* V 1,27) may have possessed a functioning rear doorway communicating with the *atrium* behind it in AD 79. As mentioned above, since the other two *tabernae* (V 1,6 and V 1,25) that are open towards the interior today must have been cleared in the 19th century,¹⁵² doubts remain also for V 1,27, although, in this case, no evidence other than analogy remains to validate the supposition. The only *atrium* area that uncontroversially communicated with its two front shops in the late period was that of the bakery. In this case, however, the commercial activity had taken over the entire house (as witnessed not least by the two ovens in its rear area) and the shop openings were relatively recent, created no earlier than the paving of Via Vesuvio.

In an attempt to date more closely the trend of cutting off direct access between mercantile establishments and *atria* in *insula* V 1, it is natural to turn attention towards the double *atrium* house of Caecilius Iucundus. With its five doorways leading from the *atria* to the *tabernae*, four of which were assuredly walled off at the time of the eruption, it presents a model context for examination (Fig. 36). The North House has the best conditions. Two of the three doorways that once provided communication between its *atrium* and the surrounding *tabernae* are still blocked with solid masonry, whereas the third only has preserved the first course of its previous fill. The explanation for the poorer state of conservation of the latter is that here the masonry fill was not, as for the other two doorways, a solid wall but

¹⁴⁹ The pipe is visible in the photograph of the wall presented on www.pompejiprojektet.se/insula.php, *Caupona*, Room f - W wall, northern section.

¹⁵⁰ The famous well, from the shaft of which the first evidence of the presence of an early Bronze Age settlement (Palma Campana phase) was retrieved in 2004, was found beneath a layer interpreted as the bedding for the floor; Boman & Nilsson 2006/2007, 146.

¹⁵¹ This statement should not be considered totally conclusive since it is not always absolutely clear whether the actual rear walls were part of the first initiative of the structural history of the house to which they belong. As a rule the masonry of the partition walls is not bonded into, but abuts the boundary walls.

¹⁵² As already mentioned a staircase base is built in front of the doorway leading from *taberna* V 1,6 towards the *atrium*, blocking the possible passage. The 19th-century cork model in the Museo Nazionale of Naples, shows a walled-off doorway in the rear wall of *Taberna* V 1,25.



Fig. 37. North wall of the atrium. The North House of Caecilius Iucundus. By Hans Thormid.

more like a screen defined by a single line of stones and standing directly on top of the last floor of the rear shop.¹⁵³

Based on Mau's observation that there were Third-Style decorations in *cubiculum c* and *ala d* as well as in *tablinum e* of the North House (Fig. 20—all too ruined to be assigned a place within the scheme of the Four Styles today), it has been hypothesised that the whole *atrium* was redecorated in the Third Style as part of the large building-phase that followed the merging of the two houses,¹⁵⁴ and also, albeit not clearly stated until now, that the permanent closing of the doorways was part of the same work. Plaster analysis, in the way the method has been implemented up to the present in *insula V 1*, can be used to confirm the first part of the hypothesis (the redecoration), but unfortunately not the second (doorways walled off) as sampling has not targeted the two blocked doorways, which in spite of the solid fill have but faint plaster remains.¹⁵⁵ That the *atrium* was uniformly decorated in a pre-earthquake (presumably Third-Style) phase may, however, be corroborated by the results

of the analysis made of plasters sampled from its north wall and in the southwest corner.¹⁵⁶ Here the plasters are of the same type.¹⁵⁷

The north wall is broken only by the walled-up doorway situated in its east extreme, which once communicated with the deep *taberna* V 1,20–21 (Figs. 37, 38). In spite of the fact that no sampling has been carried out on the surface of this blocked doorway, other evidence may be used to associate its former (today totally lost) decoration with the topmost surface of decorated (presumably Third-Style) plaster on the north wall. The masonry fill of the doorway displays large patches of clay lining, a coarse material used on walls when needed to even off a surface before applying the plaster proper and in this case it is obvious that the lining was used to integrate the surface of the door block with the surface of the plaster that covers the north *atrium*

¹⁵³ For illustration see, www.pompejiprojektet.se/insula.php, V 1,24, *Taberna*, Room b - Floor.

¹⁵⁴ Karivieri 2005, 150, referring also to Dickmann 1999, 306; Karivieri & Forsell 2006/2007, 125.

¹⁵⁵ Sampling and microscope analysis of wall plasters have been carried out routinely, mainly in order to define the different plaster types within a house and to map their occurrences within that frame. A pilot study testing the range of the method for answering precise questions is projected for the *atrium* area and *triclinium k* of the North House. In this study more numerous samples will be made targeting features of special interest for the archaeological interpretation, such as the walled-up doors. In this study the archaeologist's eye will be tested against the results gained independently by the conservator and vice versa.

¹⁵⁶ Both to the east and south this *atrium* has doorjambs only, no walls. Plaster sampling on the west wall has yielded no evidence relevant to the present discussion: the plasters retrieved were either of a very early type (presumably First Style) or, on the brick quoin of the *fauces*, of post-earthquake type, thus presumably a late repair or adjustment.

¹⁵⁷ In fact both conservators, Carin Pettersson and Agneta Freccero, involved in the examination of the plasters in *insula V 1* agree that these samples belong to the same pre-earthquake type as well as to its position within the relative chronology of types sampled in the North House of Caecilius Iucundus. They clearly differ from the post-earthquake types. Most of the latter are easy to identify in microscope examination because their filler is rich in finely grained, re-cycled materials—presumably from the abundant supply of waste materials from ruined architectural parts made available after the earthquake. More definite proof of the post-earthquake dating of such “dirty” plasters is that they are always found on top of other (older) plaster types when appearing in stratified positions on walls.



Fig. 38. Detail of Fig. 37: walled-up north doorway of the atrium area of V 1,23, the north House of Caecilius Iucundus. Note the clay lining half way up in the doorway fill and its relation to the plaster (full of pottery sherds) of the north wall proper. By Hans Thorwid.

wall next to the doorway (Fig. 38).¹⁵⁸ The two coatings were apparently made to work together as preparation for the final, fine plaster layer and its painted decoration, preserved further west (Fig. 37). Apparently, the doorway must have been blocked off either at the same time as the (Third-Style) decoration of the *atrium*, or later. An earlier walling up can be excluded as the clay lining sticks directly to the masonry, thus apparently invalidating any hypothesis stipulating earlier decorations on this part of the doorway fill.¹⁵⁹

In the case of the southern of the three doorways, the one leading towards rear shop V 1,24b (Fig. 36), plaster analysis suggests a somewhat later date of permanent closure than that concurring with the redecoration of the *atrium*. The plaster of the southwest corner, which, as already mentioned, shares the same characteristics as the decoration-carrying plaster of the north wall, can be followed around the doorpost and into the doorway proper. The same plaster type was also sampled on the inside face

of the opposite doorpost, on the other side of the doorway. It may thus be concluded that this doorway remained open for a while longer—after the redecoration of the *atrium* had been completed. This observation may, however, have little bearing on the main issue of the present discussion as it seems as though a permanent closure of the means of communication between the *atrium* and *taberna* V 1,24 had been effectuated anyhow, but in another way—by blocking the door that provided communication between this room (really an *atrium cubiculum*) and the front shop, instead of that communicating with the *atrium*. Together with the rear room of the northern front shops of the bakery (V 1,14), V 1,24b is the only *atrium cubiculum* equipped with two doorways, thus offering double access, both from the *atrium* and from the front shop. A reinforcement, added to the partition between the front and the rear shops V 1,24 a–b (on the rear shop side of the wall), may well have blocked the old opening entirely,¹⁶⁰ until the more modestly dimensioned doorway seen today was opened (Fig. 21). The short end of the partition reinforcement rests on the boundary towards the South House and abuts its plaster coat. Microscope analysis indicates that the latter is similar in composition to that sampled on top of the (already discussed above) brick stitch repair of the south wall within rear shop V 1,24b (Fig. 25).¹⁶¹ The reinforcement of the partition between front and rear shop, and possibly also the closing of the doorway between them thus occurred co-ally with or later than the stitch repair.

The evidence from the North House suggests a sequence of events, starting with the closing off and redecoration of the *atrium*. The blocking of the doors was probably part of a new scheme for the function of the *atrium* and the street front of the house. In the southwest part construction works, made most likely to accommodate a second storey above *taberna* V 1,25 of the South House, caused some calamity/damage entailing the need for repair of the facing of the boundary wall, and for insuring the static capacities of the partition between front and rear shop: the doorway between them was walled up. When this doorway was opened anew, more modest in size, the doorway leading towards the *atrium* was screened off. Of course, neither the exact chronology of this hypothetical development nor the extent of the second storey nor its possible

¹⁵⁸ For illustrations see: www.pompejiprojektet.se/insula.php, V 1,23 Casa di Caecilius Iucundus - North House, Room b (atrium) - N wall. The clay lining is the yellowish surface covering the fill at mid height of the doorway. The last coarse plaster layer of the N wall is easily recognisable because of the pottery sherds added to it.

¹⁵⁹ A new set of plasters may be applied to an earlier decoration, which functions as a perfectly sound base for them, but hardly to a clay lining. That the lining constitutes a less trustworthy adhesive is witnessed by the mostly missing plaster layers of the doorway fill as compared to the north wall itself.

¹⁶⁰ That the rear doorway leading into it from the front shop proper is older is suggested by its rather impressive appearance and by the material used for it. Its still standing northern post consists of a pillar belonging to an *opus africanum* construction. For illustration, see www.pompejiprojektet.se/insula.php, V 1,24, Taberna, Room a - East wall; Room b - West wall.

¹⁶¹ The type is earlier than or preparatory to the one sampled on the north and SW *atrium* walls.

growth from above *taberna* V 1,25 into the space above V 1,24a–b can be settled as yet.

We may thus view the blocking up of earlier communications between main houses and street-front shops as a phenomenon that gradually became normative during the Imperial period. The plasters that may be related to the blocking of the front shops of the North House of the Casa di Caecilius Iucundus suggest a time span that corresponds to the Julio-Claudian era, or more precisely to the late days of Caligula through the early reign of Claudius if the lowest possible chronology for the merging or the two houses is accepted.¹⁶² A similar, albeit somewhat wider time span recurs as a formative period for the creation of the separated dependencies of the Casa del Torello as well. In this estate a total reconstruction (redevelopment) seems likely (though not yet proven) to have taken place in the Augustan or early Julio-Claudian era, followed by a new important period of restructuring in the late Julio-Claudian or Flavian period. The blocking of the corridor between the kitchen area of the Casa del Torello and the *atrium* of *domus* V 1,3 exemplifies the last step in this development. In the case of the Casa del Torello all material markers of dependent status remain present until the end, indicating that the trend towards separation was not dictated by legal changes, i.e., new property conditions. Nor for that matter was it caused by economic need: as amply shown by the exceptionally rich water installations, sumptuous living was enjoyed in the Casa del Torello until the eruption. Instead this alteration more likely reflects social changes of significance, presumably a general trend towards transformed household structure in which a firmer division had emerged between residential living and mercantile activities. Coevally new kinds of separate housing were created above the street-front establishments.

Second-storey flats

Walling off may have been especially relevant for shops with assumed lesser connection with the daily life of the big house. In fact, several of the walled-off *tabernae*—V 1,20–21, V 1,25 (the more northern of the two front shops in front of the South House of Caecilius Iucundus), V 1,31 and V 1,6 (the west front shop of the Casa del

Torello)—were adjusted for a new function. Staircases were installed, converting the ground-floor shops into passages towards second-floor living spaces, the new comfort of which is evidenced by the downpipes of the second-storey latrines connected to the cesspits of their ground-floor equivalents. A further example, this time with entry directly from the street (as also in the case of *taberna* V 1,20–21), is to be found above the north, rear entrance of the Casa degli Epigrammi greci, where the former wide entrance was separated in two (*Fig. 5*), a *posticum* for the main house and a doorway (V 1,12) opening directly on the flight of stairs leading to the second-floor flat.

A late date, subsequent to or concomitant with the walling off may be expected. In the case of *taberna* V 1,25, the base of the staircase abuts a plaster coat that is pre-earthquake in kind but as such, late, being of the same type as the plaster covered by early Fourth-Style decorations in and around the peristyle of the Casa di Caecilius Iucundus (including that of the collapsed garden room s). In the case of V 1,31, it is evidenced by the late building techniques (*opus listatum* and *testaceum*) used for the still substantial standing remains of the second storey, in the cases of V 1,12 and V 1,21, by the use of similar, late material used for the pillars, separating the formerly wide doorways into a main and a narrower entrance, the latter leading directly to the staircase (*Figs. 5a* and *34*).¹⁶³

The installations of the privy downpipes are indicative as well. The installation in room z, east of the northern entrance into the Casa degli Epigrammi greci, is a clearly secondary feature, a masonry addition, situated in the northwest corner of the room.¹⁶⁴ In *taberna* V 1 20–21, it consists of a terracotta pipe set inside the wall, possibly secondarily as witnessed by the cracks in the wall—close to the corner where the wall abuts the boundary that separates the *taberna* from the *atrium* of the North House (*Fig. 35b*).¹⁶⁵ The installation of a shaft into a slender niche in the east wall close to the northeast corner of *taberna* V 1,25 is generally similar (*Fig. 22*), although the niche itself is better built; it cannot be excluded that it was part of the original design of this wall, although it has been suggested above that if secondarily made, it may have caused the damage to the facing of the opposite side of the boundary wall, the alleged earthquake injury in the facing of the south wall of rear shop V 1,24b (*Fig. 23*). In the (with no doubt) late

¹⁶² Based on the dating of the famous *tablinum* decorations of the South House. Stročka 2008, 307, with further bibliography in n. 9, dates this decoration within the span AD 40–45. Those in favour of a higher, Augustan chronology base their argument on historic reconstruction: the famous archive of Iucundus include some tablets dated to the Augustan period, assumed to have belonged to an earlier banker who is also sometimes assumed to be identical with the person depicted in famous bronze portrait. For a low dating of the latter, see, however, n. 103 and the text related to it above.

¹⁶³ In V 1,11–12 the separating pillar is made in *opus listatum*, in V 1,20–21 in *opus latericium*, brick only.

¹⁶⁴ www.pompejiprojektet.se/insula.php, V 1,18 Casa degli Epigrammi greci, Room z (latrine) - N and W walls.

¹⁶⁵ www.pompejiprojektet.se/insula.php, V 1,20–21 *Taberna*, Room d - W wall; Cess pit.



Fig. 39. The southwest corner of insula V 1. Field staff of 2009. Hans Thorvid top left. By Hans Thorvid.

construction—involving both ground and second floor—of *tabernae* V 1,30–31, the terracotta downpipe is an integral part of the corner architecture (Fig. 31).

The positions of staircases and latrine downpipes also give hints about the extent of the second-storey flats. They were obviously often larger than the traditional, one- or two-room, ground-plan shops. The one above the northern entrance of the Casa degli Epigrammi greci stretched eastwards all the way to the east boundary of the house. The privy is situated in the corner room and the east façade is preserved high enough to include second-storey windows.¹⁶⁶ The flat to which entrance V 1,21 gave access was the same size as *taberna* V 1,21–22, the space of the light shaft excepted. *Taberna* V 1,25 is the only one in which

the staircase and the shaft are situated in the same room, although the same may probably also be true concerning V 1,8 where we have a second-storey latrine in the northeast corner but where no parts of either downpipe or staircase are preserved. It could be that the second-storey rooms above V 1,25 and V 1,8 belonged to an older phase than the rest and that they were originally designed as one-room accommodations. In the case of V 1,25 the merging of the two houses of Caecilius Iucundus must have opened new possibilities. There is ample space and a good potential for this second-storey flat to have continued into the upper space of the North House, above the two rooms of *taberna* V 1,24—something that could explain the damage that has pursued us repeatedly through this study found on the south wall of the rear shop (Fig. 23), as well as the need for narrowing the doorway between front and rear shops (Fig. 21). The undoubtedly grandest, as well as the best-preserved, remains belong to the second-storey flat above

¹⁶⁶ www.pompejiprojektet.se/insula.php, V 1,18, Casa degli Epigrammi greci, Room t.

tabernae V 1,30 and 31 (Figs. 29–31). It was accessed from *taberna* V 1,31 and as shown by the preserved doorways, it comprised not only the space above the *tabernae* but also that above the *cubicula* of the *atrium* of *domus* V 1,3. More similar arrangements are assuredly to be expected above the as yet unexamined street-front premises towards Via di Nola.

The staircase belonging to the staircase base situated just in front of and blocking the filled-in rear doorway of *taberna* V 1,6 may have led to a second-floor flat above the inner rooms of the neighbouring dyer's, but as pointed out by Staub this can no longer be deduced from the remains. The second-storey walls in this particular area result from a Bourbon reconstruction and the staircase in V 1,6 has a contender ascending nearby, from within the *atrium* area (in room V 1,7,17). It is particularly unfortunate that the extension of what may have been two flats—one above the street-front service area, the other perhaps above the west *atrium cubicula* of the Casa del Torello (or again, above the south or east part of *domus* V 1,3, in an arrangement that would have corresponded to the flat accessed from *taberna* V 1,31 over the west *cubicula* of the same *domus*)—can no longer be determined. This is the only place in *insula* V 1 where a comparison could have been made between a street-front and a household flat (internal staircase).¹⁶⁷ It would, however, seem as though the second-storey accommodations that could be interpreted as servants' quarters within the houses had less to offer. At least none of the cesspits reported in *insula* V 1 is situated within reach of second-storey rooms accessed by means of internal staircases—except in the case of the *caupona*, but here no signs of a downpipe riddance removing wastes from a hypothetical second-storey privy to the cess-pit beneath have been retrieved. These rooms were apparently not equipped with privy facilities for their users.¹⁶⁸ Regardless, there is little doubt that the (mostly)¹⁶⁹ new second-storey premises must have offered better living conditions than their ground-floor equivalents.

Continuity and change—social order and social structure

It would seem as though second-floor Pompeii, unfortunately largely missing in the archaeological record due to the pyroclastic flows of the eruption in AD 79, would have filled in some gaps concerning the allegedly missing “separate lower-class housing”,¹⁷⁰ had it been better preserved. But it also seems as though many of these lodgings were not traditional parts of Pompeian city life.¹⁷¹ If the development that this paper has tried to fix in time is correct—hopefully to be confirmed by the forthcoming final publications of the structural history of the houses—the trend started in the early Imperial days, accelerating in the Flavian period. If so, the walling off of commercial establishments and the construction of second-storey flats may be seen as the first and only sign of a marked change in the social structure (i.e., a new way of living for the less privileged) expressed by Pompeian architecture. Apparently, the social order (the firm bond between patrons and dependent) did not change as much. The legal situation was not affected. As shown by the water-supply systems the pre-eminence of the big dwellings and the dependent status of the street-front shops remained the rule. The same must have been true for the flats above, as Roman law is explicit on the fact that the owner of the ground floor was also the owner of what came above.¹⁷²

Seen from the main houses, walling off the commercial street-front establishments must have changed the routines of household life in that it reduced the multifunctional potential of the *atria*. More important, however, it may be considered a piece of evidence for a new foundation of the social order. Obviously the earlier traffic and bustle of household folk passing freely between shops and main house, and also the lack of need for creating “independent lower-class housing”, no longer functioned as before. It could be that the walling off of workshops and the installation of second-floor flats secluded from the residences of the *insula* interior should be interpreted as a sign that the phenomenon of household slaves was diminishing in importance and replaced by an increasing number of freedmen and freeborn clients, accommodated independently, outside of but still close to the patron's house. If so, the

¹⁶⁷ Combinations of both kinds in the same house are witnessed from Herculaneum, especially well-known examples in the Casa del Bicentenario; see Wallace Hadriell 1994, 109–114.

¹⁶⁸ Except for this point the second storeys of the large dwellings will be discussed in the coming house publications. Not much is left and apart from their position within the houses, it will probably be difficult to decide whether these premises were intended for a privileged or a servile life style.

¹⁶⁹ It could be that the one-room premises are of older date than the larger accommodations.

¹⁷⁰ The term is borrowed from Jongman 2007, 593.

¹⁷¹ It should be noted that the novelty of these accommodations concerns their separation from life in the main houses evidenced by their separate position above service areas on the street front and their second-storey privies. In these respects they diverge from older second-storey accommodations with access from within the houses. On these, see, for instance, Stročka 1991, 135–136.

¹⁷² Pirson 1999; Ling 1997, 250, n. 5, quoting Pirson and specialised textual studies on the topic.

new kind of Pompeian lodgings could be seen as part of a wider experience, a switch from a large body of enslaved to a free but dependent population as a result of a decreasing supply of slaves due to the *Pax Romana*: this development was not characteristic of Pompeii alone, but of Roman Italy at large. It could be that in Pompeii it was accelerated (made visible) by losses incurred in the earthquake of AD 62/63. This calamity may also explain why the presumed change in social structure becomes evident in the material remains as a more or less simultaneous phenomenon, seen all over the city. This building activity may not necessarily have been due to the fact that the city was utterly in ruins after the earthquake—it could just as well be a sign of the need to offer better living conditions for the lesser people so as to ensure traditional social order.¹⁷³

In recent work on Pompeian housing the part played by rented accommodations has received increased attention.¹⁷⁴ Publicly announced rental adverts of course speak in favour of the existence of an important group of independent, potential lodgers. There are, however, only the two epigraphically witnessed examples of the *Praedia* of Iulia Felix and of the *Insula* Arriana Polliana. In their offer, both these estates included high-class flats. The true status of the lodgers of the second-storey flats in *insula* V 1 and the shop-keepers below, whether slaves, freedmen, freeborn clients or tenants, cannot be more than conjectured.

Conclusion

The general picture emerging from our study is that of a community in development, although firmly anchored in tradition. Its way of life was based on households consisting of several closely clustered dwellings of different sizes and importance. Although part of a townscape, these households, the smaller ones as well as the big, took pride in advertising their self-sufficiency in their exterior face by the elaboration of façades and pavements. Self-sufficiency was also the rule in the interior organisation of necessary household amenities such as water supply, drainage and waste removal. When of wider scope than fusions or divisions of individual properties, change in *insula* V 1 was neither immediate nor sudden, and can be better described as process than as event. Each of the three periods chosen for the presentation in this paper presents important new conditions of relevance not just for individual properties,

but for livelihood all over the city block. The change that marked the first two periods was undoubtedly engendered by exterior dealings, whereas that made manifest in the third period appears more as a progressively growing modification of earlier conditions.

A first turning point in the history of *insula* V 1 was, of course, the intensified use of intramural land for city dwellings. In this part of the city, dense urbanisation was assuredly promoted by the expanding economy following the Roman victories in the East. A second turning point was the foundation of the Sullan colony, which was apparently followed by a new kind of interest in public welfare. The bettering of the communal infrastructures may well be understood as policy created through the ideology of a new actor on the civic scene: that of the Roman state. When, as here, studied off the city centre, the rich trappings of the following, Early Imperial period, the historically most celebrated of the Pompeian periods, strike this examiner as a result of the conditions formed by an earlier, otherwise decisive change: the creation of the colony. As filtered by the data retrieved from *insula* V 1, the later passage from Republic to Empire, or from Second- to Third-Style decorated interiors (to put the periods in terms familiar to Pompeian archaeology), appears as a continuum, not as any clearly defined break in attitudes to space and social life. The phenomenon of closing off communications between shops and residences and in parallel the installation of independent, street-front oriented second-storey flats may, on the other hand, be seen as something more fundamental in preparation, a change of earlier patterns of social interaction. This change in attitude could perhaps have entailed a more radically new cityscape had it not been tragically interrupted and frozen while still in progress.

As yet, the means furnished for dating are far from sufficient both for pinpointing in time the diverging alterations that may be described as responses to the new infrastructures (changed orientation of entrances towards Via Vesuvio, opening up of façades for new shops, introduction of aqueduct water, closing old cisterns), and for spotting the earliest material indicators of new attitudes to social interaction. In fact many of the trends registered should best be seen as part of a process working over considerable amounts of time and sometimes partially parallel developments. Especially the change in “lower-class housing”, which has been sorted out as characteristic for the last of our three chronological windows, obviously started to develop already before the late period in Pompeii, generally seen as initiated by the earthquake of AD 62/63. As described above, we may date the closing off of the communications between the old *tabernae* and the *atria* in the Casa di Caecilius Iucundus already to the Julio-Claudian period.

¹⁷³ See Andreu 1973, 8–16, on analogies concerning the social aftermath of later, early modern and modern earthquakes.

¹⁷⁴ For a recent synthetic account on tenants and for a summary of evidence on tenants in Roman law, see Laurence 2007, 138–140.

It may well be that future examination will be able to spot still earlier precursors to this phenomenon. As we have seen, this city block appears to have been relatively little touched by the earthquake of AD 62/63 and may perhaps still preserve earlier remains of second storeys, although the best and most well preserved example, that of the flat above *tabernae* V 1,31–32 and the *atrium cubicula* of *domus* V 1,3, assuredly should be ascribed to a late building program.

The close study of *insula* V 1 advances a series of results or questions of interest that well merit further discussion. For the oldest phase, the question of the legal conditions of the hypothetical original plots is one of special interest. By analogy with what occurs in the southern part of the *insula*, where social dependency is suggested between the Casa del Torello, *domus* V 1,3 and the southern front shops already in the earliest period of their existence and through time—here suggested as an indication of social stability—one could advance the idea that the masonry pillar bonding the rubble walls of the South and North Houses of Caecilius Iucundus (but by far antedating their functional fusing) could signal that some kind of similar property, family, or *patronus–clientes* relation also ruled life in these two houses from the start. This would imply that neighbouring plots could form some kind of unity from the earliest phase of urbanisation, something that may have invited or facilitated fusions or other reorganisation of space later on. The investigation in progress in the NW part of the Casa del Torello, which originally may have constituted the rear part of *domus* V 1,3, will hopefully add to this discussion. The service area of the Casa di Caecilius Iucundus, situated in the rear part of the North House, V 1,23, where it as yet has not been possible to carry out investigations because of the situation resulting from the 1980 earthquake (masses of debris and the instable structures) may also yield important information. The area was cleared during restoration work carried out under the aegis of the *Soprintendenza* in *insula* V 1 in 2008 and is now open for investigation. The question whether the fusion of the two houses was one event or a progressive development, raised several times in discussions accompanying our fieldwork, may now be studied with more substantial facts. It could be that all three big houses in this *insula* at some point in their development had the Γ - (or mirror reversed Γ -)shaped plans that still characterised the Casa del Torello and the Casa degli Epigrammi greci at the moment of the eruption.

The foundation of the Roman colony brought about important change, and perhaps also a new civic awareness. The new communal investments, the reorganisation of the streets and a new steady water supply were tangible modifications of earlier conditions in *insula* V 1, which might also have introduced a new idea of the town as a community.

Still, independence in the old sense apparently remained the ideal. Within the walls of the houses one chose apparently not to rely on communal provision for the basics of life—the most important new communal facility, the aqueduct water, was used mainly for display. Outside the houses, the public fountains must have been experienced differently. After all, Pompeian society was adjusting. In the use of space in *insula* V 1, the period witnessed the three main residences, presumably along both the two major *insula* fronts but definitely along Via Vesuvio, growing in size at the same time as the number or the importance of the street-front shops increased.

Our interpretation of the mementos exhibited in the *atrium* of the Casa di Caecilius Iucundus may be used to illustrate the mentality that ruled this community. The herms and the earthquake relief offer intriguing testimony to the kind of values that created them. Added to the impressive base for the strong box, *arca*, situated in mid position in front of the north wall (Fig. 26), they bear witness to the fundamental importance of family pride and identity intimately linked to the person of the *pater familias* and his property, but also defined by the civic scene. According to our investigation, the earthquake damaged this house more heavily than most other parts of *insula* V 1. Still it is recorded on the *lararium* relief as an event that took place in the Forum.

Faith in the communal investments may have increased over time, especially as these proved reliable also in times of crisis. There is little to indicate that the inhabitants of *insula* V 1 were deprived of their running water after the earthquake of AD 62/63. On the contrary, the rich finds of lead water pipes and distribution boxes still *in situ* strongly suggest the opposite. Missing pipes, as the more shallowly positioned one in the *atrium* of *domus* V 1,3, may generally be explained by the effect of 19th-century excavation or later disturbance.¹⁷⁵ Building activity was intense, albeit unequally distributed from one area to another. The rich amount of evidence makes it possible to trace different developments from property to property, as well as to spot individual solutions in how questions of well-being were allowed to model the living quarters.

In the sphere of the Casa del Torello, life continued apparently in good order and comfortable circumstances. Neither the big *nymphaeum* nor the dependent workshops was deprived of their supply of aqueduct water.¹⁷⁶ In mat-

¹⁷⁵ Cf. the original excavation reports' or Mau's references to now missing jets or distribution boxes in Casa degli Epigrammi greci and the North House of Caecilius Iucundus.

¹⁷⁶ Compare the open taps alternating with closed ones that belong to the pipes that exit from the main distribution box (Fig. 16).

ters of hygiene, the house displays unusually high standards: a private bath, aqueduct water in the kitchen and a hand basin in the garden portico. Whereas latrines and cess-pits were normally situated in the close vicinity of kitchens, if not within them, these functions were separated in the Casa del Torello, just as, of course, in the second-floor flats. The secondary *atrium*, i.e., *domus* V 1,3, and obviously also the second-storey spaces over the street-front *tabernae* were closed off as independent living spaces, in dependency.

The smaller living units furnish a more divergent picture than what is generally believed. Although three large residences occupy the greater part of *insula* V 1, closer scrutiny of the front shops reveal that the space that may be described as being reserved for the livelihood of ordinary citizens is less restricted than a first review of the information offered by the plan might suggest. Apart from the four middle-sized or small entities, the *caupona* V 1,13, the bakery V 1,14–16, the commercial establishment V 1,20–21 and the Casa di Tofelanus Valens, V 1,28, some of the ordinary, although smaller-looking *tabernae* also offered accommodation. As shown by the example of *taberna* V 1,31, front shops could possess upper-floor facilities of considerably larger comfort than the often-witnessed mezzanine floors, and may in fact be considered middle-sized living quarters. In two other parts of the *insula* we also have examples of the addition of upper-floor flats of well more than one room size and separated from the dealings beneath: above the rear entrance of the Casa degli Epigrammi greci and above *taberna* V 1,20–21. A fourth, linking the front spaces of the South and North Houses of Caecilius Iucundus (if the room and latrine above *taberna* V 1,25 were connected to the space above shop and rear shop V 1,24a and b) may be conjectured, as well as others above the *tabernae* along Via di Nola. Continued investigation focussing on the remains of the upper floors of *insula* V 1 will undoubtedly reveal more evidence on this issue.

Seen over time the seeming repetitiveness of the Pompeian townscape is an illusion. Lives lead, natural conditions, communal investments, social loyalties and tradition affect the plots and the houses quite differently. A further step in our research would be to break the limits set by the city block and to explore some of the leading characteristics of *insula* V 1, such as its rich use of aqueduct water, in a larger context. The NW neighbourhood opens a particularly interesting field of investigation for further socio-economic reasoning. Here, on the opposite side of Via Vesuvio, is an area dominated by big workshops. At least one of them, the *fullonica* of Vesonius Primus (VI 14,21–22)

used aqueduct water for industrial means.¹⁷⁷ The businesses of some of these workshops may well have been correlated with work in the *tabernae* of *insula* V 1, as perhaps in the case of the combined bakers and millers in VI 14,32–34 with our nearby bakery (V 1,14–16) in the northwest area of *insula* V 1. The former had one oven each and several mills, whereas V 1,14–16 had two impressive ovens and no mill. But more investigation also remains to be made within *insula* V 1. More detail will assuredly be added to the picture drawn in the present work as the qualitative study of this city block proceeds.

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