

POMPEII: RECENT WORKS AND NEW ACQUISITIONS

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The present article is not intended to be a critical essay on the complex archaeological realities of Pompeii, but is rather a report on what has been recently realized with respect to the excavation, and above all the restoration of numerous buildings of the ancient city. This was useful to the young students who participated in the 1994 Sorrento Course. These activities were presented in a lecture given in Sorrento and, later, during a visit to the archaeological site. The interest shown by the young visitors encouraged the writing of the present text, so as to keep in memory a vision of the ancient world preserved in today's, as a real and immediate testimony.

In the IIIrd century BC, Timaeus speaks of Campania as the 'plain around the crater'. Vesuvius is indeed the centre of a territory opening onto the sea and bordered on the south and east by the Apennines. The plain, bounded to the north by the Volturno river, extends to the east in a fertile valley crossed by the Sarno river.

Vesuvius, in its destructive actions, produces new space and fertile soil. The ancient world identifies the region of Vesuvius by two factors which characterize the plain: the Sarno river that crosses it and the crater that rises in its centre. Strabone claims that 'Pompeii, close to the Sarno river, is the port for the towns of Nola, Nocera and Acerra. From this river, ships depart and arrive. Vesuvius, which is covered and surrounded by truly fertile fields, except for the peak, dominates the whole region'.

In the course of this century, and especially in the last 15 years, there has been a remarkable collaboration between the archaeological scholars and the natural science scholars. The confrontation between volcanological data, literary pieces on the ancient eruptions, and archaeological evidence coming from the sites buried by the AD 79 eruption, let us know the history of the volcano and its cyclic manifestations. The isopachs¹ of pyroclastic lava flow² and the surge³, the

¹ Lines connecting the points of equal thickness of eruptive products.

² A flow of very small hot clasts (hereafter called by their Italian denomination, lapilli). These fall by gravity from the eruptive column, then following the topological slope.

³ A flow mainly composed of water and ash.

power of the fall-off products and the layers of *lapilli* ejected during the eruption's explosive phase delineate with great precision the affected area and the phases of the tremendous eruption.

The AD 79 eruption comes almost unexpectedly. The earthquakes, which for seventeen years starting from AD 62, destroyed the area surrounding the crater, were not perceived as an indication of a volcanic phenomenon. However, the volcanic origin of the mountain had been known before, and the fertility that characterized the region was attributed to this peculiar nature of the soil. Of the last eruptions, which had occurred during the second millennium BC, people had not preserved the historical memory. In fact, there is no trace of these in literary testimonies. The known image of Vesuvius, of a mountain covered and surrounded by very fertile fields, is that of Strabone. This benevolent and pleasant vision is supported by a painting found in the house of Centenario in Pompeii, showing Dionysus and Vesuvius. The god, whose body is covered with bottles, pours a drink to the young prone panther. On his left rises a mountain whose slopes are covered with vineyards. The profile of the mountain coincides with the representation of the Somma mountain before the eruption of 1631, known from an old print. A precise exegesis of the painting allows us to conclude that there is a relation between the mountain, the fertility and the vineyards. Moreover, the allegoric character of the representation concerns only the presence of Dionysus. The mountain is represented in an imprecise, yet rather realistic and unconventional manner. Recently, Antonio Scherillo delineated the evolution of the shape of the Somma mountain and Vesuvius during the post-Pliny period, starting with a precise examination of this painting. The realistic representation of the mountain allows us to identify a bowl-shaped crater at the lower foot of the mountain, which originated with a depression after an eruption in the prehistoric era. The big cone, which has been present in this embryonic shape since ancient times, is thought to have developed its actual shape after AD 79. It exceeded mount Somma's peak in height only after 1631, as a consequence of another catastrophic eruption.

The 79 eruption lasts less than 30 hours, and in that short time the whole region is disrupted and buried. The phenomenon is characterized in the initial phase by explosions of magma and gas, with the formation of an eruptive column about 20 km high, from which, in the next phase, pyroplastic lava flows detach and fall. Flow and storms of mud, with water from phreatic origin, characterize the second and last phase of the eruptive movement. The natural phenomenon, reconstructed clearly in the present-time volcanological

investigation, had as an exceptional witness, Pliny the Young. Tacitus asked him news of the death of his uncle Pliny. From Miseno, where he commanded the fleet, the uncle had gone to the area of the eruption to help his friends, who were living in villas close to the mountain; having a passion for natural phenomena, he also wanted to observe an event rightly considered exceptional. From Miseno, which is close to the northern extremity of the gulf, Pliny observed a cloud that was rising. Its whiteness was due to the presence of gases and parts of it were dark from the ashes and solid materials it carried; its shape resembled a Mediterranean pine, with a high trunk and wide foliage. The short navigation towards the Vesuvian coasts was made difficult by the thick and hot ash, mixed with *lapilli* and blackened pebbles, that was falling on the ships. Pliny arrived in Stabia, at Pomponiano's villa, stopped in his escape by the adverse current. He comforted his frightened friends, and took a rest after dinner. The falling ash had already obstructed most of the courtyard. The frightful and continuous earthquakes threatened to destroy the house. He decided to go out and face the *lapilli* rain, protecting his head with cushions and sheets. The fugitives went to the beach, but the sea's prohibitive conditions did not allow them to escape. The gases emitted by the volcano and the incessant fall of ash provoked Pliny's death. His intact body was found when the light returned, on the third day of the eruption; he looked more like a serenely sleeping man than a dead body.

The excavation of the Vesuvian sites provides a direct and immediate testimony of the catastrophe. A method was devised by Fiorelli, in the last century, to mould the imprint left by the fugitives' bodies in the same ash that protects the parts of the ancient town that are still buried. In the autumn of 1990, improving on Fiorelli's method, the excavation of insula 22 of regio I¹, on the southern side of the city, was completed with the realization of the most recent casts. The old method of pouring plaster into the hole corresponding to a cavity was substituted by an injection of cement grout, additioned with fluidifying and anti-shrinking substances. The plastic material, entering deep into the cavities corresponding to the buried bodies' articulations, ensured the execution of very realistic moulds. The group of fugitives is composed of nine people; they were covered with ash and were probably asphyxiated while running to the beach for a way out. It is a terrible and effective snapshot of the tragedy.

The 79 eruption devastated a wide area, burying three towns and numerous villas. The imperial provisions sent for the restoration of the devastated area had little effect. Vesuvius, awakened after a long dormant period, continued to scorch

¹ The town is split up in blocks, or *insulae*, making up quarters, or *regios*.

the region until the end of the first century of our era. In 203, 472 and 512, particularly destructive phenomena took place. The return of the population is limited and insignificant. The new towns on the Vesuvian coast flourish and expand on the very land that covers the ancient towns, and the memory of these is slowly lost. Epigraphs bearing Pompeii's name, casually discovered during the construction of the Sarno channel at the end of the XVIth century, are then taken to refer to one of Pompey's villas. To tell the truth, not much attention was paid to the emerging ancient materials until 1748, when the king of Naples, Charles IIIrd of Bourbon, launched regular campaigns of excavations and investigations.

The king's action is related to the political and cultural activities intending to give Naples all the structures and institutions deserved by one of the greatest European capitals. At that time the excavations, like the others in the Mediterranean archaeological centres, were a frantic search for art and cultural treasures for the museums. The discovery of the 1763 epigraph, explicitly mentioning Pompeii (*res publica Pompeianorum*), brings about the definite identification of the site and the realization that the excavation is not only bringing to light objects and monuments, but also a whole city, whose life was abruptly interrupted on the 24th of August, AD 79.

The ancient town's complete documentation offered by the excavations has, for a long time, directed the studies towards a reconstruction of daily life, according to an archaeological investigation rather than historical research. It should be said that the characteristics of the town favoured this approach: the information about Pompeii transmitted by ancient literature is not very important, since Pompeii was a small town of the empire, in a very old region, Campania, that was already rich of history. This important place the town has in archaeological history is due to the phenomenon that caused its unexpected demise, and at the same time preserved it in a complete and exceptional manner.

The town rises in the southern part of the Cumano gulf, the Gulf of Naples of our time, named after the town of Cumae, the oldest Greek colony of the West, which had exerted its dominion over the entire area. The site occupied by Pompeii is at the confluence of the Vesuvian coast and the Sarno plain, whose named after the crossing river. Owing to the proximity of the sea and the river outfall, the town is a port for the other towns of the plain. The recognition of this role is explicit in the above-quoted testimony of Strabone, written during the Ist century: 'Pompeii, close to the Sarno river, is the port for Nola, Nocera and Acerra, where goods arrive and depart'. The oldest archaeological attestations indicate that the town, characterized by its surrounding wall, already existed in

the VIth century BC. At that time, two cults coexisted within the walls, that of Apollo, followed by Cumae's Greeks, and that of Herakles, attested by the Doric temple of the triangular forum. The materials from this period demonstrate that the city's culture was characterized by Greek and Etruscan influences. More important was, at the end of the Vth century, the presence of the Samnites, following their process of infiltration and assimilation in the whole of Campania.

The modern critic does not mind the character in many ways anonymous of the old town. As a matter of fact, this very anonymity provides the possibility of studying the way a town is founded, the way it changes with the historical context and its characterization during the Ist century, a time by which the Roman empire has already consolidated its power over most of the ancient world. The eruption of 79 buried a 600-year-old town; if the modern soil preserves the town of the Ist century, the underground preserves traces of the history before 79, starting with the definition of the original wall circuit, already realized during the VIth century BC.

In Pompeii one works to bring to light the old testimonies and preserve them in the best possible condition for the future generations. This began in 1748, when regular excavations started. The archaeologist who begins in this activity cannot dismiss the experiences and acquisitions matured over such a long period. The town within the walls occupies an area of 66 hectares, of which 44 have been excavated and 22 are still covered by volcanic material. The difficulties relating to the preservation dissuade the excavation of new blocks. Nowadays the operator's main objective is to give priority to the restoration activities, so that the new discoveries are limited to areas where the excavations were only partially carried out in the recent past.

A large restoration project has been going on since 1985 within the entire archaeological area. The budget is guaranteed by the Italian Government and by contributions from the European Community in the form of a loan from the European Investments Bank. This project is not specifically a technical operation, but rather a particular aspect of a historical research: the search for all sources of information that will be useful in the critical reconstruction of a historically satisfying vision of the town in ancient times, in other words the philological method applied to an archaeological investigation. This is also the indispensable premise of the restoration activity during which ulterior elements of knowledge are recovered. In practice, the choices of restoration are thus directed to an

optimization of the preservation process in the framework of a revival of the original form following a philologically oriented method.

The first of the elements constituting the city are the walls. They identify the urban space and, together with stockade in front, rampart behind, and the towers, constitute the system of defence. In the wall's structure, several gates give access to the city and to the network of regional roads. In the course of the project of restoration, an interesting intervention was realized, bringing to light for the general public's benefit a part of the wall, west of the important Nocera gate. The completion of the excavation of the stockade and the rampart very clearly showed the dimension of the discharge effects following the earthquake of AD 62, which was, seventeen years in advance, a warning to the unknowing people of Pompeii of the future disaster. The remains of the houses that tumbled down then were scattered outside of the inhabited areas. Also this is a sign of the partial inutility of the walls, for a system of defence had been made useless by the general peace that the unification accomplished by the Roman empire induced. While carrying out the restoration project, the different phases of the walls' construction were clearly evidenced, starting from the most ancient, made of *pappamonte* (a kind of tender stone of volcanic origin) in the second half of the VIth century BC, to the most recent restorations, made during the first decades of the ISt century of our era. The walls were rebuilt and restored already in ancient times because the materials used during the construction were wearing out, and also to adapt the defence systems to the new techniques of attack and siege of the towns.

Another interesting intervention was completed outside the Marina gate. A relevant element of all the projects recently implemented was to re-create for the modern visitor a point of view as close as possible to that of the ancient inhabitant. It is thus important, with respect to the access to the town, to revive the functionality of the gates. The steep slope of the cobblestone street leading to the gate did not allow vehicle traffic, as results from the absence of wheel tracks. The street has been uncovered and partly restored as a modern access for visitors. The execution of this intervention involved the excavation and the restoration of an important baths complex, built at the beginning of the ISt century immediately outside the gate. This complex was built on an artificial terrace, made from filling material and it was, during its short life, adorned and renovated many times. In the course of the last extension, the baths assume an absolutely innovative feature with respect to Roman architecture. The restrictions imposed by the shape and narrowness of the available space imply a

vertical development of the building. Emphasis is put on the impressionistic values of an architectonic research by making the spaces seem deeper than the actual ones with the help of different degrees of illumination along a succession of rooms ending in a courtyard, revisited as a *natatio*, i.e. a bath-tub, whose walls are adorned with pictures showing water and the world of the sea. There is also an artificial waterfall on the bottom, surmounted by a nymphaeum with a mosaic scene representing Mars with cherubs.

Another element characterizing the town is its street system. The network created by the street intersections individuates the blocks used to build private houses and indispensable buildings for social life: cult, politics, business and production. Pompeii, harbour for the hinterland towns, plays a noteworthy role in the regional trade. Stores and commercial shops abound in the ancient city. The wool trade, the goldsmiths' creations, the washing and dyeing of clothes, the production of vegetables typical of the area, and the *garum* (a fish sauce known all over the ancient world) are present in many stores and shops. Applying a statistical method to the study of the ancient town provides interesting pieces of knowledge. The location along the urban area shows that the shops are situated preferably in some areas, are less frequent in others, and are practically absent in other areas. The percentages of presence of commercial and production shops characterize the *insulae* that form the *regios* as more or less residential. Shops, which have a maximum concentration in the southern quarters, are spaced further apart as you approach the city centre, the Forum, then becoming nearly absent from its adjacent quarters on the north side.

Of particular importance in this area is the *via di Mercurio*, distinguished by the noble facades of the ancient houses, which make up the scenery for the layout of the street. The November 1980 earthquake that occurred in Campania caused serious damage to these buildings. In the restoration project much attention has been paid to the work on the facades, previously analysed by means of a high-precision photogrammetric survey. The restoration also involved the street, putting back in place the stone slabs of the pavements borders and surface, remaking the earthenware covering where it had disappeared. In this way the wall structure was given further protection, so that the fleeting water could not penetrate the foundations. Above all, the road was completely reconstituted with regard to both the facades of the houses and the functionality of the pavements.

Today, the problem of the dating of the town's urban plan still remains open. In the course of the activities of these last years a stratigraphic exploration has been carried out on a major part of the town. These tests were performed

near pavements, since the archaeological area had to have a modern hydraulic plant and an efficient electric installation to make up a proper protection system against damage and theft. The outcome of the stratigraphic explorations has brought to the conclusion that the town planning had been realized between the end of the IIIrd and the beginning of the IInd centuries BC. In this period, with the Carthaginian's defeat in the Second Punic War, a city plan appeared as necessary due to a probable increase in the number of inhabitants coming from neighbouring cities destroyed by the fury of the war. They were attracted there by the opportunities offered by a site at the centre of a river outlet, and therefore naturally suitable for an increase in commercial exchange activities. This event could be expected from the rule that the Romans could wield over the whole Mediterranean.

In Pompeii, a Mediterranean town by its geographic position as well as its culture, the open public spaces and the streets had wider role than merely connecting and allowing the circulation between the different sections of the city. The streets are the meeting and socializing grounds, where a good part of the citizen life takes place. This is reflected in the articulation of the houses facades, whose restoration has been given much attention. Shops and rooms opening onto the streets receive shade and cover from projections formed by the roofing and the little balconies of the upper levels. Large parts of the pavements become a sort of gallery, meant to protect passers-by from the rain or, more frequently, from sunstroke and the summer intense heat. To this context belong the restoration interventions along the facades of the houses bordering the southern part of via dell'Abbondanza, an area where most of the interventions included in Pompeii's restoration project were concentrated.

Until a few years ago, the town's southern area was not open to visitors, because the works of excavation and restoration that had taken place between 1950 and 1960 were still only partial. At that time the architecture and facades were in a precarious state of preservation; moreover, what was known of the site history was limited, and surely misleading.

At this point, some considerations should be made about the characteristics of the damage and the methods of preservation of the wall structure and of its paintings and floors in the Pompeii area. The attested structures are mainly private houses, very modest and not always of exceptional quality, built to last for a few generations and certainly not to defy millennia. This observation is more relevant still if it is related to the covering works. Pompeii's paintings, which were considered a very important monument by the very scarce documentation

on ancient paintings, had the function of embellishing the plaster used to protect the walls: they were meant to be covered by new ones whenever tastes changed or they became too worn. Similar arguments can be given about the floors, from the simple ones made of worked mortar to the more elegant and precious ones made of coloured marble pieces or fine mosaic tiles. In fact, the wearing of the floors, and consequently the need for their replacement and change is much faster than in the case of wall paintings. Now one typically tries, through a series of preserving processes, to extend the lifetime of the ancient remains for a period much longer than originally intended, and in completely different conditions; but a building is really preserved with the kind of maintenance guaranteed only by daily use. The ancient houses are only partially preserved since they are now missing some essential structural elements, first of all the ceilings, which on the one hand protect the whole house and on the other hand constitute the last horizontal linking element on top of the vertical structures. In this way, the atmospheric agents destroy, day after day, all that is without cover or protection, such as paintings and floors. Daily ageing also affects the ridges of the walls. Falling stones expose the internal sections of these walls, which are made mainly of lime mortar. Lime is an optimum fertilizer for spontaneous vegetation, mainly ruderal, which thus causes, with the changes from one season to another, grave destruction to the ancient structures.

Restorations performed during the 1950–1960 excavation campaign were made using techniques that did not resist the passing of years and the increasing knowledge and on-going scientific research. The need to preserve the monuments in the conditions in which they were at the time of the excavation, keeping this state as a sign of their history, and therefore not to be interfered with, had led to the adoption of materials incompatible with the original structures, such as concrete beams to replace wooden ones. To this must be added the devastation caused by the continuous growth of a spontaneous Mediterranean vegetation, rich in variety and quantity in this fertile volcanic soil, particularly rich in mineral salts.

Given this situation, it was decided to elaborate and perform restoration works that would reconstruct the buildings according to the original model, whereby guaranteeing protection and cover to the floors and the walls by a 'philological' reconstruction of the covering materials: earthenware tiles on wooden frames. In projects elaborated following this methodology, an important issue is the use of compatible materials, as similar as possible to the ancient ones. It is easy to imagine the steps leading to the elaboration of such a project: all the

information and documentation related to the original findings in the excavation work has to be collected; then high-precision topography has to be performed in order to locate traces of all the elements that have disappeared and are indispensable to reconstruct the models of the buildings in their original form; a selection has to be made of those structures that must be reconstructed to ensure the protection of the remaining elements, with a view to a mostly conservative restoration instead of an uncritical reconstruction; the archaeological excavation has to proceed, wherever previous ones yielded only partial results; paleobotanical studies should also be made in the area dedicated to cultivation, so as to recover the useful information pertaining to the 'green' parts of the site.

On the basis of the above methodological and procedural observations, a series of interventions were realized, and others are under way. Some of them are particularly relevant and exemplify what is going on in the archaeological area regarding the operations of restoration and the new methods that are being applied. As an example, we mention the case of insula 9 in regio II. The excavation performed in the decade 1950–1960 has brought to light the perimeter walls of the insula, leaving the habitable core still covered by the volcanic products. Considering that a good restoration starts with a well-done excavation, and that an indoor excavation offers an optimization of the quantity and quality of recovered objects, the quarter was covered by a large canopy, thus transforming the area of excavation into a sort of restoration laboratory. The excavation was extensively conducted in a completely stratigraphic way, removing volcanic materials in the exact inverse order with respect to their original formation and position.

The first discovery was the covering layer of the insula, made of both flat and curved earthenware roof tiles. The roofs were monitored photogrammetrically and the roof tiles, seriously damaged by the weight of the *lapilli*, were taken out and immediately repaired one by one to be later rearranged for future repositioning. The covering of the working area notably reduced the damage suffered by the newly exposed remains, in particular by the paintings, after being buried for 2000 years. Moreover, the rigid structure of this cover supported the ancient walls, still unstable after the earthquake that had accompanied the 79 eruption.

The careful excavation of the different areas allowed the recovery of entire households, from luxury objects to simple every-day utensils. The recovered objects offered useful information on the activities and the social level of the

inhabitants. The objects found in the *larario*¹ of house No. 2, named the 'house of the jeweller', let us imagine a condition of wealth typical of expert craftsmen. This idea is supported by the presence of small strongboxes containing precious uncut stones while others are ready to be delivered to the customers.

In other houses, as in the garden of house No. 4, important information was obtained by a careful paleobotanical excavation work. About 160 small root cavities were found, and the studies on the wood and pollens proved the existence of a nursery, plants being sold inside the house itself. Both the garden cultivations and the household activities of entire quarters indicate that the area was populated by highly specialized and reasonably wealthy craftsmen. They constituted a solid reference point in the economical life of the whole ancient town. The elements revealed during the excavation of *insula* 9, but this goes for the other quarters as well, were recomposed after the following restoration, adopting methodologies compatible with the origin of the ancient structures. Restoration also included the re-plantation of the "green" areas using plants similar to those originally present, an outcome of the results of the paleobotanical excavation.

The vision we now have of the ancient town is similar to its layout at the time of the eruption. Pompeii, at that moment, was 600 years old. One of the goals of the archaeological investigation is the delineation of Pompeii through the times, which imposes the exploration below the street surfaces of 79. Stratigraphic inspections were performed during the ongoing excavations. South of the city, *regios* I and II were, in AD 79, characterized by quite isolated buildings, separated by wide green areas. Tests done below these gardens surface show that at the beginning of the IInd century BC, there were a certain number of buildings of the same type and size. This indicates a process of dividing the land into plots, evidence for an urban planning also present in other towns of the ancient world.

The methodology of restoration shows to what extent our knowledge of the past can be deepened. What conservation is meant to pass on to the future as a patrimony is a sign left by history, which therefore belongs to all mankind.

¹ A place dedicated to the family and household gods.