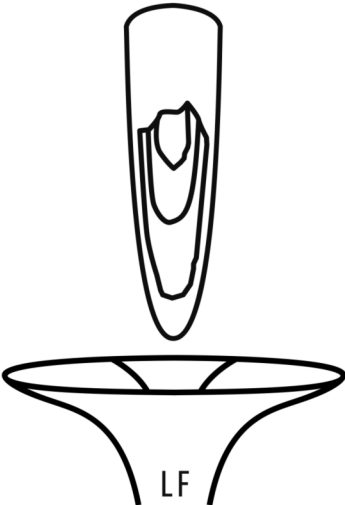


DIGGING UP



ATLAS OF THE BLANK HISTORIES

Introduction

The eyes sweep over the Gulf of Naples and the rock of Rovigliano, the mythical Petra Herculis, alighting on the roofs of Pompeii and on the profile of Vesuvius rising up in the background, then moving round all the way to the Sarno Valley and the Monti Lattari. In a single glance from the Villa Arianna, the surrounding landscape reveals all the geological and human history that has been built up over countless centuries. The Villa Arianna, built on the hill of Varano from the second century BC and part of the archaeological complex of ancient Stabiae, was enlarged with a number of ceremonial rooms. However, it is not possible to say exactly how big it was, because large portions nearest sea have collapsed down the cliff. Devastated by the eruption of Vesuvius in 79 AD, the Villa was discovered and explored during the Bourbon period, in the second half of the eighteenth century. It was stripped of its

contents and its most precious frescoes, which are now in the archaeological museum in Naples, before being reburied and brought back to light only from 1950. With all its troubled history, the Villa Arianna takes us back to an ancient, luxuriant world that was obliterated by the eruption, and then through to its discovery and plunder, to archaeological investigations and then abandonment, oblivion, and neglect, through to its very recent restoration. A history stratified below ground and brought back to light by core sampling.

If we plunge into the future envisioned by Chris Marker in *La Jetée*, we find ourselves in a world in which the surface of the Earth is reduced to a gigantic radioactive wasteland, and human beings are forced to live below ground. Here, the victors of the war perform experiments on the vanquished. Since they cannot use space, the scientists in this underground world attempt to exploit the dimension of time. They use prisoners as guinea pigs that they send back into the past in the hope of finding resources they can use to ensure the survival of humanity, and to repopulate the surface of the planet by using the present. In this extended, mobile present, the future may already have taken place and the past may still be taking shape.

Digging Up is an attempt to materialise what in the film we see as a succession of images. It does so by entrusting the journey into the past to core boring, which by its very nature exemplifies the stratification of time. The cores constitute the DNA of the places they come from and sampling them makes it possible to ensure reproducibility in the future. This reverses the past into a sort of memory of what is to come, and this is impressed upon the material extracted from the bowels of the Earth. Shown for the first time in 2012 in Kabul, on the occasion of dOCUMENTA 13, the project was expanded and shown again in Cappadocia in 2017. For this new chapter of the *Atlas of Blank Histories*, the investigation started out from a series of stories set in Pompeii, both inside and outside the archaeological site, reaching all the way to Vesuvius, in areas such as Castellammare di Stabia, Herculaneum, and Torre del Greco, and as far as a Pozzuoli. We are taken from the discovery in 1936 of an enigmatic magical square on a column in the Large Palaestra in ancient Pompeii, to Lake Avernus, where Virgil set the access to Aeneas' world of the hereafter, and which is bound up by spell of the Fata Morgana, through unauthorised buildings and the concealment of the archaeological site in Pollena Trocchia, all the way to the Vesuvius Observatory.

The uniqueness of this land is recounted in stories and documents, and in legends handed down by the locals, guiding the way to the places where the core samples were extracted. They are of all kinds, with stories omitted, sometimes concealed, after settling in the subsoil, only to be brought back to the surface by means of coring.

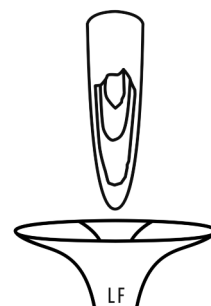
Once extracted, each individual core will be examined by geologists, who will examine the materials it is made of and thus identify the various periods in time: a horizontal reading that transforms the core into a sort of timeline – a spatial materialisation of the passing of time. This scientific analysis gives concrete form to the possibility of recreating, at some point in the future, the chemical composition of the ground in a particular geographical area and at a particular time, with traces of the stories it has been through contained in its DNA. Each core sample is shown in a standard conservation box and is later archived together with all the others in an iron container, which is sealed and buried underground as a time capsule. This will be buried in a particular place on Vesuvius, and marked with a local lava stone bearing the date of the burial and disinterment, which is planned to take place in a hundred years' time. The geographic coordinates will be sent to the International Time Capsule Society (ITCS) in Atlanta.

The material documenting the entire process of implementing the project will be available on the website, which also contains a collection of essays that give original interpretations of the meaning of core boring.

A feature of the suburban sanctuary in the Fondo Iozzino, where rites were held from the most ancient times, is the presence of an enormous number of votive offerings. These consist of miniature objects such as vases, chalices, cups, and saucers dating from the late seventh century BC. The arrival of these offerings is recorded in a dump of votive materials, which were deposited in the late second century BC in a fenced-in space, in order to raise the floor level. In the subsequent architectural redevelopment of the sanctuary, this sedimented layer of votive deposits formed a sort of connection with the previous religious activities. The huge quantity of votive materials points to an archaic cult, devoted to a divinity we know only by the epithet “apa”, the customs of which included an enigmatic and impenetrable ritual. The pottery provides evidence of the religious activity of the sanctuary, with its sacrifices, offerings, and libations, which included the use of wine, as revealed by residual organic traces. The artefacts – vases, jugs, and bowls – bear sgraffito inscriptions in the Etruscan alphabet, and dedicatory formulas with the names of the offerors, together with scratched symbols, including crosses, stars, asterisks, and small trees. This is the largest collection of Etruscan inscriptions ever found in a single place in southern Italy, and it sheds light on the very earliest period of the sanctuary and on the presence of the Etruscans in the Vesuvius area. These artefacts show that the sanctuary was used for this form of worship for a very long time, from the seventh to the first century BC.

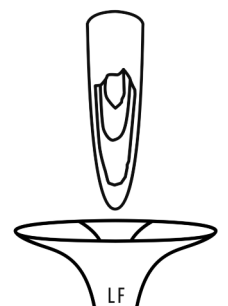
Similarly, in one of the most evocative spaces in the monumental sanctuary built in 1800 in contemporary Pompeii, we find a gallery of devotional ex-votos dedicated to the Blessed Virgin of the Rosary. The ex-votos in the premises next to the basilica are in the form of objects, photographs, texts and painted panels offered to the Madonna of the Rosary in thanks for grace received. They do not just bear witness to the faith, for they are also a symbol of the perpetual memory of great devotion to the Virgin.

Most of these votive offerings in the sanctuary consist of paintings, some of them beautifully made by master craftsmen known as *madonnari*. In them we can see some of the characteristic elements used to portray the state of mind and the stories of the patrons. These might include a view of some terrible episode that happened before a miracle, the representation of a saint, a narrative description, and a picture of the worshipper. At the bottom we see the Latin initials V.F.G.A. (*votum fecit, gratiam accepit* – vow made, grace received) or the Italian P.R.G. (*per grazia ricevuta* – for grace received). Over the years, goldsmiths, silversmiths, decorators, potters, and photographers were all involved, making these ex-votos a consistent part of the historic and devotional memory of the people, as well as testimony to their artistic and crafts traditions.

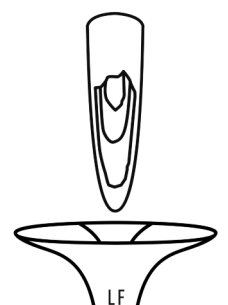


The water in Messigno has the miraculous property of making wood placed in it as hard as marble. The discovery in 1832 of the rock-like wooden tops of three cypress trees planted vertically in the ground led the engineer Giuseppe Negri to believe he was facing the remains of ancient Roman boats. Since cypress trees are not endemic to the area, and cypress wood was once used for ships' masts, Negri came to the conclusion that these tips were the masts of ships that had been sailing in the area, which formed part of the sea at the time, and that they were buried by the eruption of Vesuvius in AD 79. At the time of the eruption at Pompeii, the area of Messigno was near one of the seven tributaries of the Sarno, which was famed for its miraculous waters. We know that by the eighteenth century the area had become a lagoon, which the Bourbons decided to reclaim, and indeed the famous Bishop Saint Paulinus landed in the lagoon by sailing along the Sarno. Negri even convinced himself that this was the very ship on which Pliny had travelled to rescue his friend Pomponianus during the eruption, and he decided to continue with the excavation. He therefore wrote to the Minister of War and the Navy, pointing out that Archaeology and History stood to benefit greatly from this new discovery. It would arouse the wonder, amazement, and envy of all nations, since it would prove the incorruptibility of wood fossilised by these mineral waters over the course of eighteen centuries. For some decades no more was heard of this story, but in 1858, during excavation work to channel the river Sarno, a cypress grove of about a hundred trees was found in Messigno. The news once again attracted the interest of scientists and archaeologists. The regular rows of trunks showed that the cypress grove had not grown spontaneously. It was probably planted for its wood, which was much sought after for fixtures and furniture, and it led to the discovery of an ancient country villa just next to it. When the reclamation of the area was complete, it was buried again and its location was recorded only in the archives and

in bibliographic sources, until it resurfaced again in some archaeological essays in 1989. Negri's hypotheses were discarded, but he is acknowledged as having been the first to attract the attention of the academic world to a site that, over the course of the years, has turned out to be one of the richest in terms of archaeological finds.



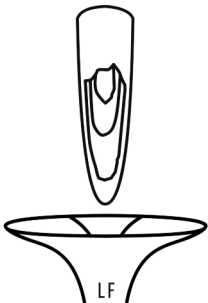
A number of signs that are hard to decipher have been found inscribed on blocks of tuff on stretches of walls in Pompeii. They include asterisks, opposing triangles, and short lines that intersect to form tridents. These are quarry logos, consisting of incomprehensible graphic symbols that do not correspond to the letters of any alphabets known to be used at the time. So, if we are to interpret them, we need to find an alternative code in order to build up a separate semantic system. One possible interpretation of these signs that has been put forward associates the quarry logos with the stylised shape of the tools used by the various workers. In this case, the symbol would be like a company advertisement that, instead of using names, initials, or monograms, summed up the shape of the tools in a simple form, instantly recalling the activities involved in building. Something not that dissimilar from a modern logo, portraying the work tools of stonecutters and masons. The asterisk seems to refer to the *groma*, a surveying instrument with plumb lines, and the trident shape to various types of lewis, while the double opposed triangle logo would represent a double axe. These signs evoke everyday scenes of a hard-working Pompeii, where construction work was on the cutting edge: the first known dome in *opus caementicium* is that of the Stabian Baths, dating from the second decade of the first century BC, while *opus craticium*, – wattlework – an early example of an anti-seismic construction system, had been commonly used ever since the end of the third century BC. *Opus craticium* was a forerunner of the *casa baraccata*, consisting of a wooden frame with vertical posts and supporting beams or horizontal stringers with a filling of *opus incertum*. In 1784 the Bourbon government issued its “Royal Instructions”. These were anti-seismic building regulations applicable to all new buildings in southern Italy, and they were directly inspired by the construction system that had been used centuries earlier, in Pompeii.



The impression left by a woman’s breast has disappeared into thin air. The cast was taken from a body that was buried during the eruption in AD 79 and unearthed in 1772 in the Villa of Diomedes, where the compact debris made it possible for the excavators to see the entire figure of the dead woman, her clothes and even her hair. However, the only part they managed to extract was the breast, when they recovered the impression left by the body in the hardened ash of the pyroclastic flow. This was thanks to an intuition that was superseded a century later by the revolutionary method of plaster casts, developed by Giuseppe Fiorelli. This method gave volume to the bodies; reproducing the poses they were in at the moment they met their death, like the embracing couple who appear in a scene in Roberto Rossellini’s *Journey to Italy* (1953).

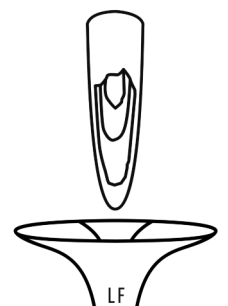
Put on display after its unearthing in the nearby museum in Portici, the breast soon became an attraction that fired the imagination of travellers, writers, and artists. The novel *Arria Marcella. Souvenir de Pompéi*, written by Théophile Gautier in 1852, focuses on this fragment of a breast, which fascinates the young protagonist Octavien to the point that he goes to visit the exact place where it was found, in the Villa of Arrius Diomedes. A mysterious spell transports Octavien back in time and he finds himself in the city before it is destroyed by the volcano, and here he meets and falls in love with Diomedes’ daughter, Arria Marcella, the girl whose breast it is. The story ends with an exorcism performed by her father, who is incensed at his daughter’s licentious behaviour. This effectively closes the time portal that had been opened by Octavien’s amorous obsession with Arria, who goes back to being just a cold shape impressed on the ash. Despite its fame, the cast vanished into thin air, and its memory is entrusted purely to the literature it inspired. One possible hypothesis is that a series of invasive tests carried out by inquisitive nineteenth-century scientists ended up damag-

ing and destroying it. One of the last people to see it was the naturalist Arcangelo Scacchi who, with a now coldly positivist attitude, and not without irony, wrote in 1843: “I was shown an irregular impression, which I was told was that of a woman’s breast; if they had not told me, I would certainly not have guessed, but out of courtesy I believed them.”



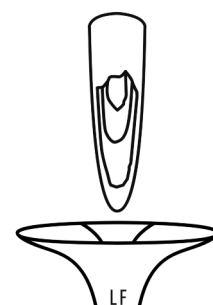
Among the ruins of illegally built houses behind the municipal cemetery, hidden among the sheds of the greenhouses used for growing flowers, and beyond the railway underpass that leads to the sea along the coastal line of Torre del Greco, stand the remains of the once majestic suburban complex of Villa Sora, with its terraces going down towards the sea, and its gardens, baths and nymphaea. Villa Sora, in the neighbourhood to which it gives its name, was a spectacular complex. Its frescoes and marble intarsias are so sophisticated that it is considered to have been an imperial residence. Dating from between the first century BC and the first century AD, when the coastline of the Gulf of Naples, with its Graeco-Roman buildings, was an oasis of splendour and luxury, the Villa originally covered a large area, rising up on three levels, of which only the intermediate one can now be visited, for the rest was destroyed by the eruptions of Vesuvius in 79 AD and in 1805. The discovery of the ancient remains was made in the seventeenth century, when some truly superb artefacts were found. These included a marble relief with Orpheus, Hermes, and Eurydice, now in the Museo Archeologico Nazionale di Napoli, and a statue of a Satyr pouring, now in the Museo Archeologico Regionale Antonio Salinas di Palermo. Finds and expropriations from the site continued during the Bourbon period, and through to the nineteenth century, when the Villa was damaged by the construction of the railway line, which follows the coast and goes through it. The awkward presence of the railway caused no little harm, in the form of structural damage, detachments, and lifting of the paint of the frescoes, due to the proximity of the sea and to the shockwaves produced by passing trains. By 1974, the Gruppo Archeologico was already in charge of the site, and in 1989 came the first regular excavation. This, however, was not enough to make the complex safe and stop its deterioration and neglect, which has continued to the present day, despite all the measures put in place. In 2004, Villa Sora was full of garbage, for it was used as an illegal tip, but the following

year it was cleaned up and cleared of weeds, and the old fence was expanded and replaced to ensure greater protection of all the buildings in the complex. The Villa is in a quite remarkable area, behind the municipal cemetery, and to reach it one needs to go through private property that has clearly been the target of illegal building for many decades. As well as the now abandoned huts, it is surprising to see the number of greenhouses used for cultivating carnations, which are some of the most vigorous in Campania, and which are exported throughout Italy. The flowers grow white, but they are often painted red to satisfy the demand of the markets, and to reach Sanremo, which is home to Italy's most famous song festival. Despite all the illegal constructions, its past as a garbage tip, its position between the railway and the cemetery, and the difficulty in reaching it along the abandoned road that winds its way through the carnations and greenhouses, the site is now the focus of special studies. These accompany a field campaign for the recovery of *disiecta membra* – scattered fragments – so that Torre del Greco can once again claim its precious classical past



SATOR, AREPO, TENET, OPERA, ROTAS:
these are the five Latin words that form a Magic Square, a palindromic enigma of ancient origin that has been an eternal puzzle for archaeologists, epigraphists and scholars of religions, mathematics, and esotericism. What makes this Magic Square so special is that the words are palindromic also when read vertically, from top to bottom, or from bottom to top. What is also surprising is that when all the letters are taken together and anagrammed, they form “Pater Noster” twice, in the form of a cross, together with “A” and “O” appearing twice at the tips of the cross, representing Alpha and Omega, the beginning and the end, in the tradition of the Apocalypse of John.

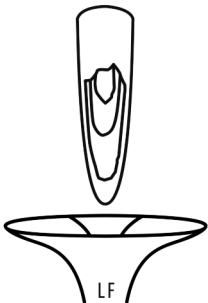
A sophisticated play of words, and so complicated that its creation has been attributed to divine inspiration, and its solution is still a mystery. Some truly bizarre hypotheses have grown up around the phrase, alongside the Christological interpretation, ranging from a simple puzzle that translates from the Latin as “the farmer Arepo uses a plough for his work”, to an alchemic formula, all the way to the Templars’ password. Also its presence in Pompeii, where the engraved stone – currently the oldest known example of the Square - was found on a column in the Large Palaestra in 1936, is itself an enigma. The Magic Square might be an encrypted Christian symbol that was used as a form of coded message, since Christianity was practised in secret at the time by a minority in Pompeii, but on the other hand it might be linked to the tradition of Dionysian mystery cults, which had the power to take initiates into an ultra-terrestrial world. Or it might even come from a Mithraic cult, interpreting the words “pater noster” as a reference to Saturn - Sator - the father of the gods. The many interpretations only confirm the abundance of religions and cultures in ancient Pompeii, where the Christian minority probably lived alongside the pagan majority, but there would also have been a Jewish minority as well as mystery cults imported from the East, which spread through the Roman world by means of esoteric initiation rites.



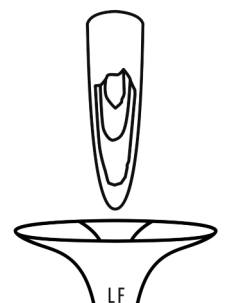
Mamo Rosar Amru, the last priest of Isis in Egypt, set sail one night and arrived in Pompeii to revive the Isiac mysteries on the Campania coast, building a temple dedicated to the goddess in the second century BC. This, at least, is the legend told by Giuliano Kremmerz, who lived in the late nineteenth and early twentieth century. He was member of a mysterious esoteric-Masonic cult that viewed the Temple of Isis in Pompeii as the power behind the movement. One of its members was Edward Bulwer-Lytton, who travelled to Italy in 1833 and found inspiration for his famous novel *The Last Days of Pompeii* (1834). But already in the eighteenth century, after the discovery in 1764 of the Temple of Isis, the first Egyptian temple that the Europeans had ever seen, modern Egyptology came into being and began to spread, giving new impetus to occultism. Alchemists and esotericists took over of the Isiac mysteries and gave them a modern twist, blending them with the theories and rites of the nascent Masonry. One of these was Raimondo di Sangro, Prince of Sansevero, the founder of the Egyptian-Osirian Order who commissioned the construction of a personal chapel inspired by the Temple of Isis in Pompeii, and another was the legendary Count Cagliostro, who made the order the basis for his new Masonic Rite of Memphis. The Temple of Isis was visited by writers and artists from all over, and it offered them a rich repertoire of images, motifs and stories that became an important iconographic and literary source for works such as *The Magic Flute*, composed by Mozart in 1791.

The temple was next to the so-called Triangular Forum, one of the oldest areas of archaic Pompeii, which was a very different city from that of 79 AD, with a patchy urban structure. The much older Temple of Athena, on a stretch of the lava bank that gave onto the port on the river Sarno. was located here. The temple and the entire area had profound meaning, as well as being of religious importance, and they were in a scenic position, visible from a great distance, so they were important as signalling posts for trade.

The name Triangular Forum comes from the shape of the temple and of the lava bank, which could be seen to be triangular both from the land and from the sea. It is believed that, after the cult of Athena came that of Hercules, the legendary founder of the city, and that, according to some sources, his legendary *heroon*, or hero's tomb, is located here. It was said that the Greek hero, returning home from one of his labours, founded Herculaneum, and was then honoured by the natives with a sacred procession, or *pompa*, in the place where the city would later be built, recalling in its name the memory of that ceremony: "As he was coming through Campania from Spain, Hercules made a triumphal procession (*pompa*) in a Campania town, and this is how Pompeii got its name."



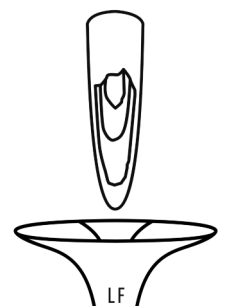
“You ask me to describe my uncle’s death to you, so you can hand it down to posterity with greater objectivity. I am grateful to you, for I am sure that if it is you who celebrate it, his death will be destined for everlasting glory,” These are the opening words of the letter in which Pliny the Younger tells Tacitus about his uncle’s death during the eruption of Vesuvius in AD 79, providing precious information about the event. His uncle, Pliny the Elder, decided to sail from Misenum to study the eruption from up close, driven by his passion for science, and to rescue some people who were trapped in Stabiae. As he left his house, he was handed a letter from Rectina, the wife of Tascius, who lived in a villa by the beach in the threatened area, where people needed ships to escape by sea. “So he changed his plans, and what he had begun in a spirit of inquiry he completed as a hero. He gave orders for the quadriremes to be launched and went on board himself to help many more people besides Rectina, for this lovely stretch of coast was thickly populated [...] By now, ashes were falling, hotter and thicker, as the ships drew near, followed by lumps of pumice and blackened stones, charred and cracked by the flames: then suddenly they were in shallow water, and the shore was blocked by the debris from the mountain. He briefly wondered whether to turn back, but when the helmsman advised this he refused, telling him: ‘Fortune favours the courageous; head for the home of Pomponianus’”. The letter continues with an excited account of his uncle’s last hours, until he died: “I believe the air was too full of ash, choking his breathing by blocking his windpipe, which was constitutionally weak and narrow, and often inflamed. When daylight returned the next day [the third day after he had last seen him], his body was found intact and uninjured, still wearing the same clothes: he looked more like a man asleep than dead.”



When the waters at the base of the Suburban Baths were drained, a skeleton came to light. It was 1980 and that skeleton was just the first of many human remains to be found, turning on its head the comforting idea that almost all the people of Herculaneum had survived the eruption of Vesuvius in 79 AD. The beach and the arches that held up the terrace of the baths and of the sacred area, which were used for maintaining and sheltering boats, turned out to be a cemetery of skeletons: over 250 were found along less than a hundred metres of seashore. The original conformation of the site was obliterated by the thick blanket of pyroclastic material, which pushed the coastline some hundreds of metres further out. In a desperate attempt to save themselves, the inhabitants of Herculaneum packed into the arcades that gave onto the sea, and it was here that the greatest number of victims were found. The contraction of the limbs shows that the bodies were subjected to high temperatures, and their open mouths that they were gasping for breath, with their windpipes blocked. Unlike the victims in Pompeii, who were buried by layers of ash that then hardened, the dozens of metres of ash that covered those trying to flee Herculaneum remained moist, gradually enveloping the bodies as the soft tissues decomposed, preserving the bones. Considering that the Romans used to cremate their dead, these skeletons are an exceptional discovery for biological anthropology, offering a virtual census of the population at the time.

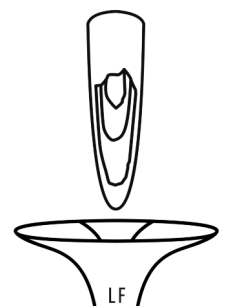
On 3 August 1982, during excavation of the ancient marina, a charred wooden boat, placed upside down, was unearthed a few metres from the Suburban Baths. Near the keel was the skeleton of a man, probably a soldier, aged 37 and about 1.8 metres tall, wearing a belt from which hung a dagger and a gladius. A bag with twelve silver and two gold coins was found nearby. He had lost a number of teeth, probably in a fight – maybe the one in which he had been struck by a pointed weapon that had cut into his left femur. The regular development of his bones

showed that his nutrition had been good and the head of his femur appeared worn down, as found in people who spend a long time riding. The carpentry tools found next to the skeleton – a bag containing a hammer and two chisels for wood – probably show how, in peacetime, the soldiers were used for construction work. He had probably just got off the boat, possibly a lifeboat, in a bid to rescue the many Herculaneans who had raced down to the beach. Here we see not just the lifestyle and customs of the time, but also the final hours of Herculaneum, with the feverish stampede of a panic-stricken population.



A short, deformed little boy, wearing a hood and a monk's habit, with silver buckles on his shoes: this is Monaciello, a spirit that appears in different forms, leaving coins in people's homes when he likes them, and telling jokes that turn into numbers to play on the Lotto. He will hide and break objects or blow into the ears of people sleeping, simply out of spite. In her *Leggende napoletane* (1881), Matilde Serao says that this "munaciello" was actually a real person. It was in 1445, when Naples was under Aragonese rule. Two lovers had to keep their relationship secret because of the difference in their social class: she, Caterina Frezza, was the daughter of a rich merchant, while he, Stefano Mariconda, was a lowly servant. Every night, Caterina would wait for her beloved but one evening Stefano never turned up. On his way, he had been attacked and killed. The young woman was so distressed that she decided to withdraw to a convent where, nine months later, she gave birth to a sickly little baby, who remained that way as he grew up, humiliated by others. His mother prayed for him every night and allowed him to leave their home wearing a monk's habit to bring him good luck. The little monk thus used to walk the streets of Naples and, upon the death of his mother, no more was heard of him. This is one of countless stories about the origins of Monaciello, the spirit that lives mainly among the deconsecrated churches and the small country vicarages at the foot of Vesuvius. One of these is the church of the Madonna dell'Arco in Pompeii, which for years was feared as it was considered to be haunted by the spirit. The church was founded by Nicola De Rinaldo, as a marble epigraph recalls, and for a long time rumours swirled about malignant presences inside the little building, precisely because of the ageing nobleman's passion for spiritism. The building was one of the first religious complexes in the city and a custodian of its historical and archaeological past even before it was built, because it was here that the first discoveries of the ancient city were made. After the eruption of 79 AD the name Pompeii was no longer applied to

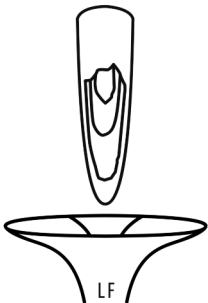
a precise geographical location and, as from the Middle Ages, the place where the ancient city was buried began to be known as Civita Giuliana. It is here that the church stands, but no one knew that it marked the spot where the city was buried. Pagan religions and Christianity, spiritism and legends all weave together and survive in modern Pompeii.



During the Second World War, Vesuvius was targeted in a number of aerial bombardments. The Royal Air Force carried out many raids on the volcano, and its slopes became like a mine-field, with large quantities of unexploded ordnance, while the bombs that did go off made it look like the surface of the moon. The Vesuvius Observatory, which was set up in 1841 to study the unpredictable activity of the volcano, was a front-row witness to the effects of the war. The necessary instruments and knowledge were lacking, but they were gradually acquired by studying the behaviour of the volcano, and seismographs – which were initially made almost by hand – became increasingly sensitive, until the world’s first electromagnetic seismograph was installed in 1863. As well as scientific instruments, the Observatory also has a collection of lava medals, which were first made in the nineteenth century, using magma that flowed directly from Vesuvius. The subjects they portray include mythological scenes and portraits of important personalities, ranging from Napoleon to Mussolini. The collection was damaged during the war.

In the Second World War, the Observatory recorded one of the most intense volcanic activities just as Italy entered the conflict, and it was accompanied by rumblings of Vesuvius in June 1940, while bombing raids were repeatedly carried out in the area from 1943. Bomber pilots at the time targeted the cone of Vesuvius. Paradoxically, a similar “experiment” had been attempted in 1922 by the volcanologists of the Observatory, in order to blow up the magma column that was about to emerge. On the evening of 1 November 1944 a very strong wind was lashing at the terrace of the Observatory, making it impossible to the scholars to stay. After a few minutes of the usual whistles and explosions of bombs falling behind the building, an anomalous blast was felt. There are those who say that the cone was damaged, causing the lava to flow, but other scholars believe the hypothesis is not credible because the seismic recordings of the event are missing.

Even though the link between the bombing raids and the activity of the volcano has never been proved, the targeting still made an interesting contribution, in scientific rather than military terms: examining the seismographic recordings and comparing the times with those of the most violent explosions, it was possible to calculate the propagation velocity of the relative earthquakes caused, obtaining a sort of deep X-ray of the volcano. The final count was 162 bombs dropped on Vesuvius, and the data obtained led to an initial, well-founded hypothesis concerning the internal and underground conformation of the volcano.



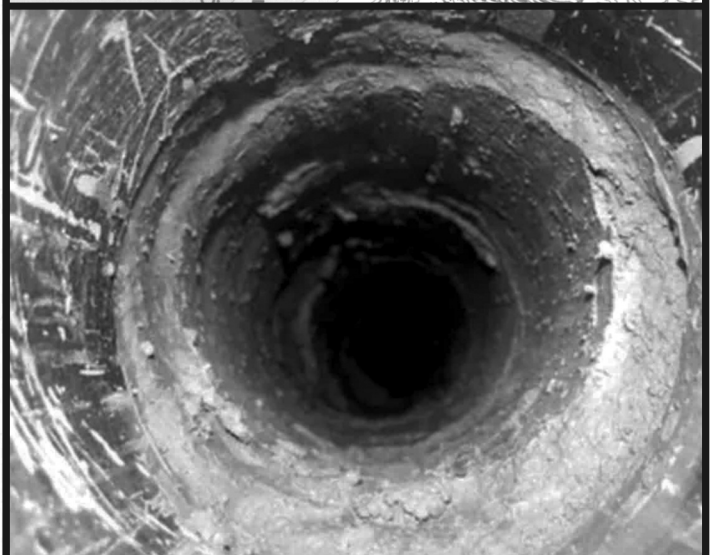
The Survey Benchmark Monument



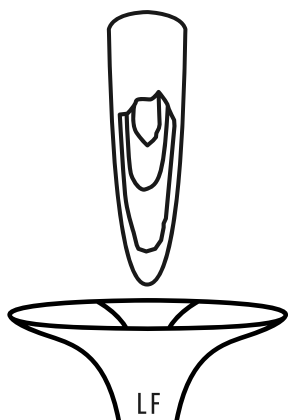
SOURCES OF GEOLOGY
(in addition to data from Plates I to XVII)

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