

attraction at the Barnum and Bailey Circus. Otherwise, the Neapolitan captain of an Italian ship, Marino Leboffe, rescued his crew by ignoring the prohibition on sailing imposed by the port authorities, observing, 'I know nothing about Mount Pelée, but if Vesuvius were looking the way your volcano looks this morning, I'd get out of Naples.' All the other inhabitants were instantly killed by a ground surge (a cloud of hot gas and debris at 700°C) that overwhelmed them at speeds of over 100 km per hour.<sup>3</sup> Although, therefore, the possibility had already been raised that Vesuvius' eruption in 79 had been on a quite different scale of violence from those in modern times, its true horror came to be appreciated fully only in the light of the eruption of Mount St Helens in the north-western United States on 18 May 1980, and also as a result of new archaeological research.

The new interest among archaeologists in reconstructing the course of the eruption in detail has developed hand-in-hand with advances in vulcanology. As well as being of interest for its own sake, this topic is relevant for our understanding of how the archaeological record was itself created. Much is at stake, since the nature of the eruption governed both what was left behind for archaeologists to dig up, and how it was sealed by the deposits from the volcano. On a basic level, for example, it is not valid to derive a pattern for the everyday use of coinage in the town from coins found next to skeletons. Such collections of coins often include more gold and silver coins than bronze denominations. This is a reflection of the victims' attempts to salvage as much worldly wealth as possible, rather than to equip themselves for a day's shopping. By contrast, bronze coins are more prominent in other types of contexts not connected with bodies, such as in houses and shops.<sup>4</sup> The significance of our new understanding of the eruption is much more far-reaching than this, since, instead of supposing that the destruction of Pompeii was caused primarily by the fall of pumice and ash, we can now trace the impact of far more violent forces. The crux of the matter is an appreciation that Vesuvius' eruption in 79 was highly explosive, accompanied by pyroclastic activity. In the last couple of decades, archaeologists and vulcanologists have collaborated in seeking to understand the main outline of events during the eruption, and recent painstaking excavations have permitted a more detailed picture of these events to be recreated. Research into the precise sequence of events continues, but given the important implications of the work so far resulting from dialogue between archaeologists and vulcanologists, it seems opportune to provide a brief account of what seems to be the consensus at the moment.

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Mount Vesuvius is situated above these places and people live all around on very beautiful farms, except at the summit. This is largely level, but completely unfruitful, like ashes to look at, and it displays porous hollows of sooty rocks on the surface, as if devoured by fire. As a result, one would deduce that this area was previously on fire and held craters of fire, and that it was extinguished when the fuel failed.

Strabo, *Geography* 5.4.8

It has sometimes been suggested that the Romans were unaware that Vesuvius was a volcano. As the passage cited above demonstrates, however, only a few generations before the eruption in AD 79, the geographical writer Strabo recorded that there was something curious about the summit of the mountain. Similarly, the Sicilian Diodorus, also writing towards the end of the first century BC, compared Vesuvius with Mount Etna back home (4.21.5). Of course, this knowledge may have circulated only among specialists, but even if the local inhabitants had been aware of the mountain's dangerous properties, it is unlikely that anyone would have done anything about it. After all, people today are only too aware of the potential dangers, and yet the region remains densely populated by about three million inhabitants, of whom one million live within a seven-kilometre (just over four-mile) radius of the volcano. This is the area that could be completely destroyed within the first fifteen minutes of a medium-to-large-scale eruption.<sup>1</sup>

Since AD 79, Vesuvius has erupted over thirty times, most violently on 16 December 1631, when the region was shaken by earth tremors for six months beforehand, and most recently in 1944 in the wake of the allied landings.<sup>2</sup> It was, however, the explosive eruption of Mount Pelée on Martinique (West Indies) on 8 May 1902 which first prompted speculation on the full horror of Vesuvius' most notorious eruption. Only three of the 28,000 inhabitants of St Pierre, known as the 'Paris of the West Indies', survived: a little girl who had been sent on an errand, a man whose house was on the edge of the line of destruction, and a prisoner protected by the thick walls of his cell, who subsequently made his living as a side-show

## Pompeii

### Time chart of the eruption

|                           |  |
|---------------------------|--|
| 24 August<br>late morning | Eruption begins with phreatomagmatic explosion: thin layer of ash.   |
| early afternoon           | Formation of eruptive column resembling umbrella pine. 'Plinian' phase. Phonolitic magma (white pumice) begins to fall, borne to the south of Vesuvius by prevailing winds.  |
| 5-6 pm                    | At Pompeii, buildings begin to collapse under weight of accumulated pumice; some people try to flee, others take refuge inside houses  |
| 8 pm                      | Magma composition changes to tephritic phonolite (grey pumice).  |
| 25 August<br>early hours  | Eruptive column reaches highest point (c. 32 km), maximum discharge of magma: $1.5 \times 10^8$ kg/s.  |
| 1-2.15 am                 | Pyroclastic phase. Column collapses. Surges 1-2 overwhelm Herculaneum, reach Oplontis and Boscoreale.  |
| 2.15-6.30 am              | Grey pumice fall; lull at Pompeii: people try to leave shelter, head towards the south. Column rises again to c. 30 km.  |
| 6.30-8 am                 | Column collapses. Surges 3-6 sweep down over Pompeii within a couple of hours. Surge 3 extends to north wall; Surges 4-6 cover the whole town, bringing death to all remaining in the area. Surge 6 reaches as far as Stabiae.   |
| from 8 am                 | Final phase of pumice fall; caldera collapse and phreatomagmatic activity.   |
|                           | The most important revelation has been that the eruption consisted of two major phases, with a brief lull in activity in between them. The first phase started on the morning of 24 August, and is named 'Plinian' after the famous eye-witness accounts written by the Younger Pliny in letters to Tacitus (6.16, 6.20). <sup>5</sup> This lasted for about twenty hours, gradually creating a layer of pumice 2.8 metres (over nine feet) thick over Pompeii. After a lull in activity during the early hours of the following morning, a second phase began which was much more violent and destructive. Whereas previously it was thought that the town's inhabitants were killed by the rapid fall of ash and pumice, it is now believed that the first stage of the eruption resulted in relatively few casualties. Indeed, many people may even have escaped to safety during this phase. New analysis of the eruption suggests instead that most of the victims of Vesuvius were overwhelmed during the second stage by the pyroclastic surges and flows that swept down from the volcano. |

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The two letters of Pliny provide a first-hand account (albeit one written some years later) of the eruption as experienced by survivors at Stabiae to the south, and as seen by Pliny himself thirty kilometres (over eighteen miles) to the west.<sup>6</sup> The Younger Pliny, then a teenager, had been staying with his uncle (the Elder Pliny) at Misenum, a promontory on the northern side of the Bay of Naples. His uncle had a particular interest in natural phenomena, having just finished writing an encyclopaedic *Natural History* in thirty-seven volumes. The Elder Pliny lost his life in the eruption, as he attempted to rescue a family friend who lived at the foot of the volcano.

Many years later, the historian Tacitus sent the Younger Pliny a request for information about his uncle's death, which he wanted to include in the history that he was then writing. Pliny's letters are particularly valuable in that they provide two different geographical perspectives on the eruption, and describe a survivor's view of the calamity. His first letter reveals that the umbrella-pine-shaped cloud above the volcano was first noticed at about 1 pm:

My uncle was at Misenum in his capacity as commander of the fleet. On 24 August, at about the seventh hour [i.e. c. 1 pm], my mother pointed out to him that a cloud of unusual size and form was appearing. ... He called for his sandals and climbed to the place from which he would have had the best view of the phenomenon. A cloud was rising up – as we were observing from some distance it was unclear from which mountain (afterwards we learnt that it was Vesuvius) – whose likeness and shape a pine tree, of all trees, might best sum up. For, having been lifted up to a great height on a very long trunk, it was spreading out in various 'branches'. This was, I believe, because it was lifted up by the fresh blast, then as that died down, defeated by its own weight, it began to disperse far and wide. Sometimes it was white, sometimes dirty and speckled, according to how much mud or ash it had raised up. To a man of my uncle's great intellect, it seemed important and worth learning about from closer at hand.

Letters 6.16.4-7

The presence of a thin deposit of ash up to fifteen centimetres (about six inches) deep over an extensive area of up to twenty kilometres (over twelve miles) downwind from the volcano suggests that the explosion which produced this cloud may not have marked the very start of the eruption.<sup>7</sup> This may help to explain how a slave sent by Rectina, a friend of the Elder Pliny who lived near the volcano, to ask his help in escaping, reached Misenum by early afternoon, if she had immediately responded in alarm to a relatively minor start to the eruption.

It has been calculated that the volcano exploded with immense force, such that magma and ash were vomited forth to heights of twenty to thirty kilometres (more than 65,000 to 95,000 feet) above the volcano's vent, under the force of highly pressurised gases.<sup>8</sup> Some sense of the extraordinary character of such a blast may be gained by comparison with the initial explosion of Mount St Helens, which has been calculated as the equivalent of a ten-megaton bomb, or five hundred times the size of the one that devastated Hiroshima.<sup>9</sup> The stratospheric height of the eruptive column over two thousand years ago has been established by examining the relative sizes of the pumice and rock fragments found in deposits at various distances from the crater.<sup>10</sup>

The immense power of such an eruption has in modern times become a significant hazard to aviation. As recently as 1 October 1994, the Endeavor Space Shuttle viewed a spectacular eruption cloud from the Kluichevskoi Volcano in the Russian Kamchatka Peninsula, which shot ash and gas over twenty kilometres (over 65,000 feet) into the atmosphere, but the hazards were perhaps most vividly illustrated by the case of a Boeing 747 airliner (KLM Flight 867) on 15 December 1989. This aircraft flew into the ash cloud of the Redoubt Volcano, located to the south-west of Anchorage (in Alaska), the airliner's destination. It had started to erupt some ten hours earlier and was 241 kilometres (about 150 miles) away from the airliner's position. Choked with ash, all four engines stopped working. After dropping more than 4,450 metres (14,600 feet) in a glide descent lasting five tense minutes, the crew managed to re-start the engines and land at their destination.

Vesuvius' explosion formed the cloud which Pliny memorably compared with the umbrella pine trees so common in the region (see Plate V). This cloud – a high, static column of gases and volcanic materials – contained pumice and ash that was carried downwind by prevailing winds from the north-west, and which gradually fell to the ground in order of weight, forming layers of pumice that decreased with distance from the crater. The first phase of pumice consisted of phonolitic magma (white pumice), which may have begun falling upon Pompeii roughly thirty minutes after the initial eruption, and continued into the early evening.<sup>11</sup> During this phase of the eruption, the pumice was not being deposited too heavily, perhaps at a rate of about fifteen centimetres an hour, but it built up inexorably, exerting pressure upon the roofs of houses until finally these gave way under the cumulative weight. Given that the typical house roofs were of a sloping design, it is likely that pumice accumulated more quickly in some

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places, at twenty-five to thirty centimetres per hour, so that roofs began to collapse after about six hours.<sup>12</sup> Fragments of tiles and bricks from collapsed buildings have been found towards the top of this initial layer of pumice (although their presence in some cases may have been caused by the subsequent surge rather than by the pumice fall).<sup>13</sup>

The fall of pumice itself was probably not life-threatening, given the material's low density, although the consequences of a person being struck by a denser, larger fragment of old volcanic rock ripped from the inner walls of the volcano might have been fatal. These fragments, however, were much rarer.<sup>14</sup> Nevertheless, it has been calculated that about 400 victims were found in the initial layers of pumice, some of whom were killed by falling masonry rather than by the pumice itself. One body was discovered beneath part of the portico that had collapsed in the Lærgæ Palæstra, II.vii.<sup>15</sup> Another body, found under a column that had toppled down in the Forum beside the Temple of Jupiter, suggested to the nineteenth-century novelist Bulwer-Lytton a fitting end for his wicked priest of Isis, Arbaces.<sup>16</sup> People would have been able to attempt to escape, therefore, but it would have been difficult, given the unevenness of the surface under-foot due to earth tremors and the build-up of pumice, not to mention the artificial darkness created by the eruption which inspired Bulwer-Lytton to invent a memorable conclusion to his novel *The Last Days of Pompeii*.<sup>17</sup> Even further away, at Stabiae, we gain an impression from Pliny's account of the difficulties faced by people trying to flee:

The buildings were being rocked by frequent strong tremors, and appeared almost to have come loose from their foundations and to be sliding this way and that. Outside, in turn, the falling pumice stones, though light and porous, caused fear, but this danger was chosen when compared with the others.... They placed pillows on top of their heads and tied them on with bits of cloth, as protection against falling objects. Now it was daylight elsewhere; there it was night, blacker and denser than any night, though many torches and various lights broke it up.

*Letters* 6.16.15-17.

After white pumice had been falling for several hours, probably at an ever increasingly dense rate, the next stage in the eruption was marked by a change to tephritic phonolite, or grey pumice.<sup>18</sup> Following this, it seems that there was a moment of relative quiet during the eruption, in the early hours of the 25 August. Recent excavations at Pompeii (in the area of the House of the Chaste Lovers', IX.xii.6-7) have identified for the

first time a layer of grey ash and pisolites (pea-like rounded grains of limestone) between the pumice layer of the 'Plinian' phase and the first surge layer. This is what suggests the intervention of a period of time between the eruption's two main phases.<sup>19</sup> At this stage, it appears, people decided to venture out into the streets, only to find their way barred by the accumulation of pumice. This was the danger that had persuaded the friends of Pliny the Elder to awaken him at Stabiae: 'The courtyard from which his room was accessed had so risen by being filled up with the mixture of ash and pumice stones, that, if he had spent any more time in his bedroom, his way out would have been blocked' (*Letters* 6.16.14). The discovery of lanterns near bodies, and tunnels and holes cut through the walls of houses, are as likely to belong to these temporary survivors of the eruption as to explorers returning to the site at some later date. The lull should not have been welcomed, however, since it merely heralded the fact that the volcano was about to embark upon its most violent period of activity, a sequence of six pyroclastic surges and flows. These can be detected on the ground where thin layers of ash interrupt the grey pumice.<sup>20</sup>

Each sequence of pyroclastic activity consisted of two distinct components — a surge and a flow — different in character, but perhaps only seconds apart. The exact relationship of these phenomena is still disputed since, not surprisingly, it is not easy to measure this sort of rapid destructive force with accuracy. But, essentially, the first stage consisted of the ground surge, a 'highly turbulent current of hot gas and volcanic debris, which hugs the ground and precedes the pyroclastic flow at a very high speed'. This would have streamed down the slopes of the volcano in a billowing cloud at up to 200 kilometres (just under 125 miles) per hour, and at temperatures of 100°C, or higher. The surge carried with it only a low density of solid particles, whereas the pyroclastic flow that followed soon afterwards contained a high concentration of solid particles, a 'dense flow of hot fragmented volcanic material, lubricated by trapped gas and air'.<sup>21</sup> This flow proceeded in a different manner from the surge, also hugging the ground, but carrying larger rock fragments and pumice transformed into a liquid-like flow by tremendous heat. As a result, its direction tended to be channelled along by the natural topography and by the pattern of streets and buildings in the town. It advanced rather more slowly than the surge: speeds of sixty-five to eighty kilometres per hour have been calculated from the new excavations.<sup>22</sup>

In eruptions from modern times too, the ground surge leaves behind only a thin layer of ash, sometimes only twenty to thirty centimetres deep,

and yet its destructive force is awe-inspiring: in the eruption of Mount Pelée, the surge caused sixteen steamships to capsizé in the harbour of St Pierre, it wrecked masonry walls that were one metre thick, and its impetus propelled a three-ton statue of the Virgin Mary over a distance of twelve metres (almost forty feet) from its pedestal.<sup>23</sup> Likewise, the blast from Mount St Helens treated tall mature trees like matchsticks, flattening an entire pine forest for kilometres around. It is thought that these awesome forces are caused by changes in the nature of the eruption.

One hypothesis for the Vesuvian eruption is that the continuing eruption was accompanied by explosions occurring at ever deeper levels within the volcano. This resulted in a threefold decrease: in the gas content, in the height of the eruptive column, and in the level of violence. At the same time, however, the same quantity of material was being ejected. As a result of this combination of factors, the column partially collapsed and an avalanche of red-hot volcanic debris and gases veered off down the sides of the volcano.<sup>24</sup> This occurred six times (see Plate VI).

Herculaneum, only five kilometres (about three miles) from the crater to the west, was overwhelmed by the first such surge that occurred, in the early hours of the 25 August. By contrast to Pompeii, only a relatively thin layer of pumice (twenty centimetres) overlay the ground surface of Herculaneum, because of the direction of the prevailing winds.<sup>25</sup> In the past, the burial of Herculaneum under twenty metres of solidified material has been explained as the consequence of mudslides. It was thought that heavy rains followed the eruption, causing the deposits of ash and pumice upon the volcano's slopes to become detached and to slide down on top of the town. In this way, Herculaneum's burial was ascribed to secondary phenomena, rather than to the volcanic eruption itself.<sup>26</sup> It was also believed that, as a consequence, the town's inhabitants had been granted sufficient time in which to escape. Herculaneum's fate, therefore, has often been contrasted with that of Pompeii — the former being buried by mud, the latter by pumice and ash. In fact, however, it is likely that the fates of the two towns were more similar than has been appreciated, and that both were devastated by pyroclastic surges and flows. The solidified deposits that sealed Herculaneum so much more effectively than Pompeii are believed to represent six different surges that swooped down upon the town with devastating impact. Such was the violent impetus of these surges that they penetrated for several metres into the sea itself. Furthermore, recent excavations on the ancient harbour-front have revealed that by no means all the inhabitants did escape. By 1987, 139 bodies had been

discovered crowded together within the boat-houses along the harbour-front, and doubtless many more await excavation. Careful analysis of how the bodies were found reveals that death must have been instantaneous – some people were even found sitting up, standing, or lying down naturally when the blast from the surge must have overcome them.<sup>27</sup> These excavations have given a clear picture of the violent force at work on inanimate objects too: a substantial marble basin in the hot-room (*caldarium*) of the 'Suburban Baths' was found to have been hurled across the room by the surge rushing in through the window (see Plate VII). Tiny pieces of window-glass were found implanted in the basin. Just outside the same baths, a life-size marble statue was severely damaged by the eruption process. The statue itself was propelled about fifteen metres (almost fifty feet) from its base, and the head of the honorand, Nonius Balbus, was discovered several metres from his body.<sup>28</sup> This now also helps to account for the confusion of early excavation reports, in particular in the theatre area, where bronze statues must have been toppled from their bases, and sometimes shattered into pieces (eventually suffering indifferent restoration work at the hands of eighteenth-century craftsmen). Finally, the ubiquitous presence in Herculaneum of carbonised wood and charcoal, which, it has been argued, was generated at a temperature of around 400°C, provides support for the new interpretation.<sup>29</sup>

The first two surges from the volcano (Surges 1-2) failed to reach Pompeii, stopping short at Oplontis and Boscoreale. A few hours later it was daybreak on the 25 August, but no rays of sunlight penetrated the darkness that enveloped Pompeii. At this point, a more powerful third surge did extend to the northern parts of the town. This surge (Surge 3) demolished parts of the town's walls, so that the subsequent flow proceeded unimpeded beyond this one, into the inhabited area.<sup>30</sup> The denser part of the flow was channelled along the streets, carrying along with it debris, such as tiles, bricks, and beams. Layers of deposits left by the flow are less dense in the town than in the surrounding countryside because of the interruption of buildings. The less dense parts of the flow charged over the tops of the houses, and continued on for tens of kilometres beyond the town, even over the Lattari mountains, disgoring ash.<sup>31</sup> Careful examination of the archaeological evidence reveals that Pompeii was devastated by three further super-heated avalanches (Surges 4-6) in short succession during the early morning hours. It has been estimated that the fourth surge, penetrating deep into Pompeii, killed about 650 people in the town. Consequently, most bodies have been found in the upper part of the pumice

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layer, in between the thin deposits produced by Surges 4 and 5. Their burial was then completed by the deeper layer formed by Surge 6, and by the final fall of pumice.<sup>32</sup> Recent work in the area of the 'House of the Chaste Lovers' (IX.xii.6-7) has identified a thin ash layer on top of the initial layer of pumice, representing the volcano's fourth surge, which sealed the end of the 'Pliinian' phase of the eruption. In turn the fifth surge extended further south, and finally the most severe surge, Surge 6, at about 8 am, covered Pompeii with 90-110 centimetres (roughly 35-43 inches) of material, knocking down the walls of the highest buildings, and then proceeded as far as Stabiae.<sup>33</sup>

Vesuvius' victims would have been asphyxiated by the hot gases contained in the dust-laden cloud, which would have covered the distance from the crater to Pompeii in a mere six minutes.<sup>34</sup> At this point, there was no chance of escape. Those who had taken shelter inside buildings and who had awaited a lull in the eruption before venturing forth would have suffered a speedy demise. This pattern of human and volcanic activity is reflected in the distribution of the find-spots of bodies (Figs 5 and 6).<sup>35</sup> About 650 bodies have been found in the layers of ash resulting from the surges, and 394 bodies in the initial pumice layer. Far more of the former category of bodies than those found in the pumice layer were discovered in the streets, open spaces, and near the town's gates. Many of these victims were also heading in a southerly direction, away from the volcano. In general, bodies in the pumice layer, by contrast, have tended to be found within private buildings. Ironically, it is the layer of fine ash left by the surge covering the bodies that has been the archaeologist's best friend in allowing casts to be made of the bodies that reveal fine details, such as the chain collar which prevented a dog from escaping. The casts of the bodies of these victims, such as the thirteen adults and children discovered in 1961 in the 'Garden of the Fugitives' (I.xi.2), remain some of the most moving sights to be seen at Pompeii today (see Plate VIII). It was not the fall of pumice that claimed these victims, but the violence of the pyroclastic surge. Similarly ironic is the protective capacity of the pumice that fell during the eruption: it was the very build-up of pumice that protected the lower sections of buildings in the town from violent destruction by the surge and flow processes, so that what we see today on site are the parts actually protected by the earlier phase in the eruption. By contrast, the parts of the buildings still protruding above the pumice were subsequently subjected to the full force of the surges. The last stage in the eruption

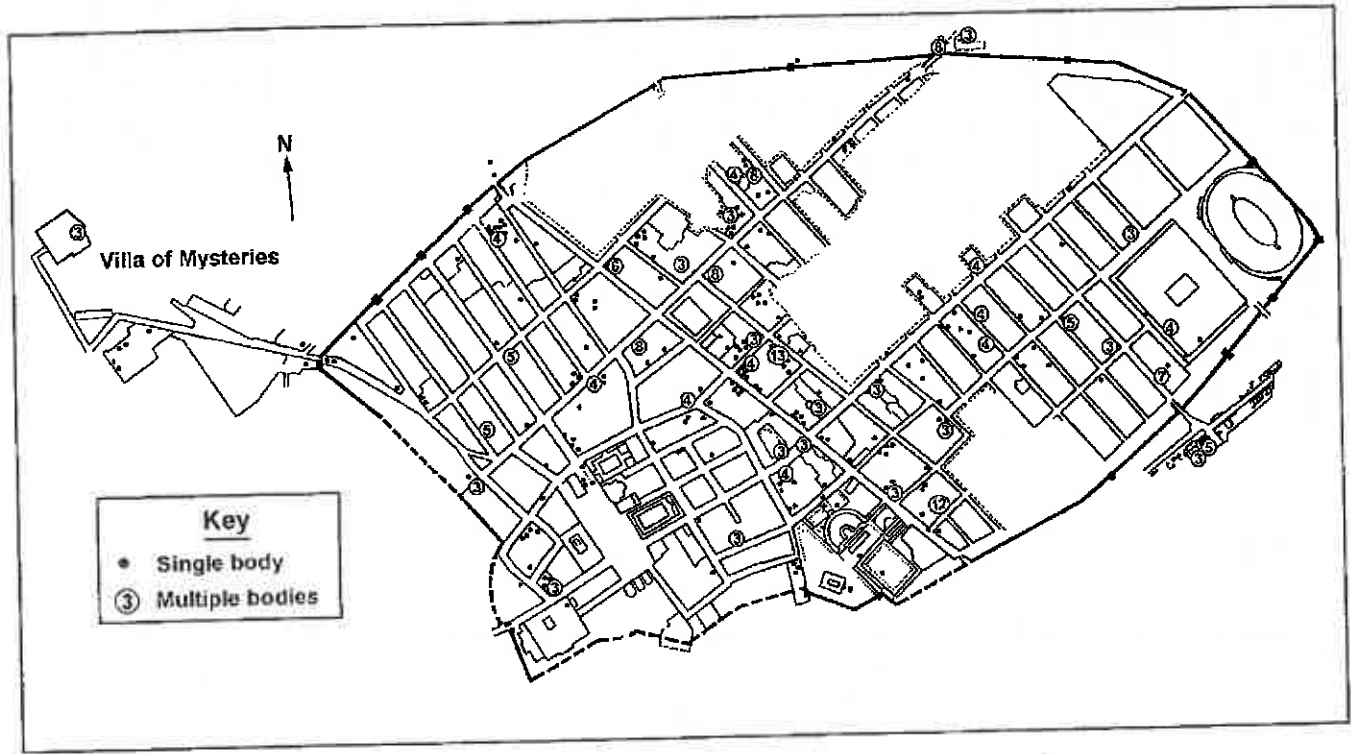


Fig. 5. Pompeii: find-spots of bodies in the pumice layer.

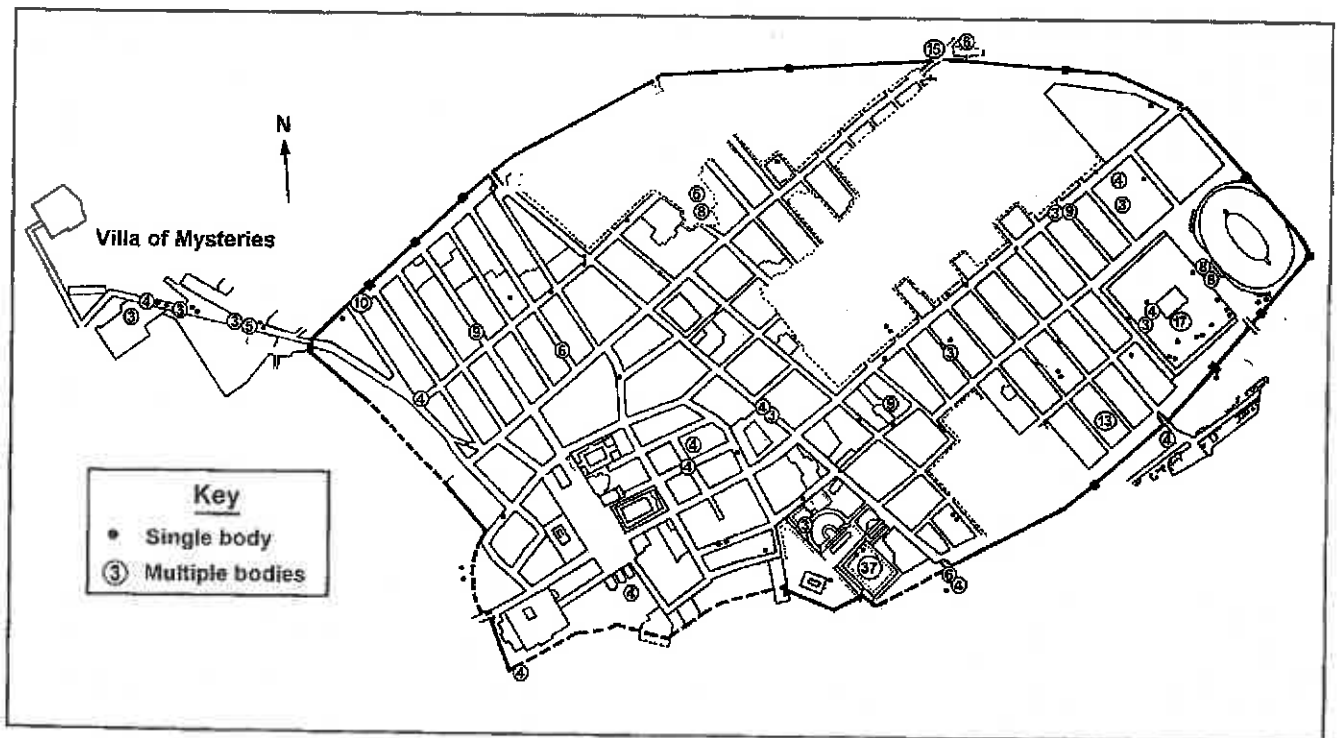


Fig. 6. Pompeii: find-spots of bodies in the ash layer, in streets and in open spaces.

consisted of a final explosion that deposited a layer of 60-70 centimetres (about 23-27 inches) of fine ash above the ground surge layers at Pompeii.

The destructive force of the eruption should warn against expecting too neat an arrangement of objects. A particularly gruesome illustration of this has recently come to light: in an alley off the 'Street of Abundance', next to the 'House of the Chaste Lovers' (IX.xii.6-7), the skeleton of a victim of the ground surge has been shattered by the force of the subsequent flow, since the body lay across its path. Man-made materials, such as tiles and bricks, being hurled along by the flow, together with its load of volcanic debris, must have sliced off the parts of the body which had not yet been completely covered over by deposits, leaving behind only its right side in the place where the victim had died. As a result, the skeleton lacks its left arm and leg, and half of its skull. Its left foot, however, remained because it was up against a wall, where the layers of debris had built up a little more, protecting it. Another skeleton in this area had also suffered violence, its backbone being broken in several places, and its skull smashed.<sup>36</sup> Intensive research at this same locality in Pompeii, which had been previously unexcavated, has provided a much more complex picture of the impact of the eruption upon the formation of the archaeological record. In addition to noting down the exact layer in which an object has come to rest, it is now appreciated that an assessment has also to be made of the comparative vulnerability of the object towards disturbance in the eruption, and of the actual type of eruptive force that affected it, whether surge, flow, or earthquake.<sup>37</sup> The various phases of the eruption had their own characteristics, and impacted upon the fabric of the town in different ways.

In all, just over one thousand bodies have been identified at Pompeii over the years, a figure which may represent about a tenth of the town's total population. Even taking into account the likelihood that significant numbers of victims may have remained un-noted in the archaeological record, there seems a good chance that a good proportion of the town's population may have escaped to safety. Indeed, given the new reconstructed sequence of events, had the inhabitants started to flee as the first pumice and ash fell upon the town, they would have had time to cover some kilometres. Nevertheless, it would only have been feasible to try to escape on foot or by animal, and the obvious direction to take would have been away from the volcano, heading to the south, but this was also downwind of the eruption, and so progress would have been continually hampered by the volcano's fallout. The grim possibility also remains that people may have paused to gather together belongings, and may not have been able to

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flee very fast in the confusion caused by the combination of darkness, falling pumice and ash, and earth tremors. Forty-eight victims, some with jewellery, which they may have been trying to salvage, were discovered beyond the town's walls, in the direction of the ancient harbour.<sup>38</sup> As Pliny's letter reveals clearly, a strong northerly wind made escape by sea impossible at the time. It is sadly all too likely that hundreds, perhaps even thousands, of the volcano's victims still lie buried in the countryside just beyond the town's walls.

Haraldur Sigurdsson ends his recent account of the eruption with the following reflection: 'The cities of Vesuvius were now wiped from the face of the Earth and buried to a depth beyond the reach of excavation by the Romans. The deposit over Herculaneum was up to 23 m thick, and Pompeii lay under a blanket of 4 m of pumice. Gradually the memory of the cities faded into oblivion, until their rediscovery in the eighteenth century.<sup>39</sup> Although more accurate of Herculaneum, this common impression misses out an important episode in the history of Pompeii — the period when the town was slumbering before being officially reawakened — as our next chapter will reveal.'

