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YEAR 12

TONI HURLEY | CHRISTINE MURRAY

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YEAR 12
FOURTH EDITION

TONI HURLEY | CHRISTINE MURRAY | PHILIPPA MEDCALF | JAN ROLPH

OXFORD
UNIVERSITY PRESS
AUSTRALIA & NEW ZEALAND

OXFORD
UNIVERSITY PRESS

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Published in Australia by
Oxford University Press
Level 8, 737 Bourke Street, Docklands, Victoria 3008, Australia.

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First published 2019
Fourth Edition

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ISBN 9780190302986



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Edited by Ingrid De Baets
Typeset by Newgen KnowledgeWorks Pvt. Ltd., Chennai, India
Proofread by Natasha Broadstock
Indexed by Neil Daly
Printed and bound in Australia by Ligare Book Printers, Pty Ltd

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Using Antiquity

New South Wales' most trusted Ancient History series has been updated for the new Ancient History Stage 6 syllabus. The second of a two-volume series, *Antiquity 2* offers complete support for Year 12 teachers and their students, providing unparalleled depth and coverage and a range of new chapter features that will give students of all abilities the best chance of experiencing success in Ancient History.

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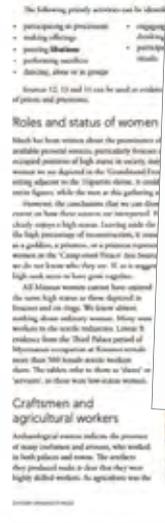
- All content has been explicitly aligned to the new Ancient History Stage 6 syllabus (Year 12).
- Subject experts Toni Hurley and Christine Murray have developed trusted, in-depth and appropriately levelled content.
- Unambiguous language is used throughout the book, with visuals on every spread to engage students and support learning.
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'Focus questions', 'Focus concepts & skills', and 'Learning outcomes' are clearly stated at the beginning of each chapter to guide teachers and students through the content.

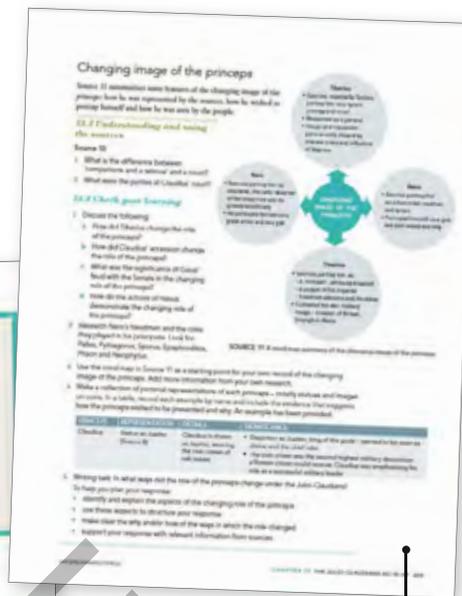
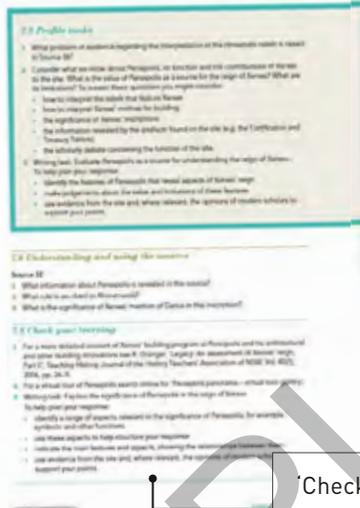
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Margin glossary definitions help students easily find the meaning of unfamiliar words and assist with their understanding.



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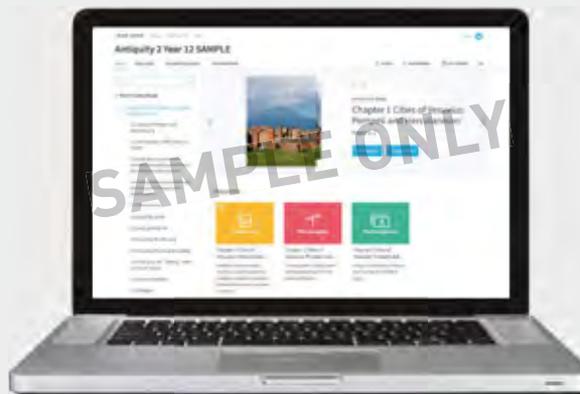
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1

Cities of Vesuvius – Pompeii and Herculaneum

FOCUS QUESTIONS

- 1 What does a survey reveal of the geographical, historical and archaeological context of the cities of Vesuvius?
- 2 How have the cities of Vesuvius been represented over time?
- 3 What does evidence reveal about life in ancient Pompeii and Herculaneum?
- 4 How have changing interpretations based on new research and technologies contributed to our understanding of Pompeii and Herculaneum?
- 5 What are the main conservation and reconstruction challenges facing the sites of Pompeii and Herculaneum?
- 6 What are the ethical issues concerning the excavation and conservation, study and display of human remains at Pompeii and Herculaneum?

FOCUS CONCEPTS & SKILLS

Sources and evidence

There is a wide range of archaeological and written sources available for the study of the cities of Pompeii and Herculaneum. We analyse the meaning and value of the sources to develop an understanding of the many features of everyday life in these cities. We make judgements about issues relevant to the reconstruction and conservation of the past, and synthesise evidence from different sources to construct historical explanations and arguments.

LEARNING OUTCOMES

- 1 Explain what a survey reveals of the geographical, historical and archaeological context of the cities of Vesuvius.
- 2 Explain the changing representations of the cities of Vesuvius.
- 3 Analyse the evidence and what it reveals about life in ancient Pompeii and Herculaneum.
- 4 Evaluate the contribution of changing interpretations based on new research and technologies to our understanding of Pompeii and Herculaneum.
- 5 Discuss the main conservation and reconstruction challenges facing the sites of Pompeii and Herculaneum.
- 6 Discuss the ethical issues concerning excavation and conservation, study and display of human remains at Pompeii and Herculaneum.

Survey of Pompeii and Herculaneum

Pompeii and Herculaneum, the cities of Vesuvius, are perhaps the best known archaeological sites in the world. A knowledge of its geographical setting is fundamental to understanding the eruption of AD 79 and its impact on the two cities.

Geographical setting and natural features of Campania

Pompeii was built on a volcanic plateau covering an area of over 66 hectares. This plateau was located between the Sarno River in the south and the fertile slopes of Mount Vesuvius to the north. Pompeii was strategically important because it lay on the only route linking north and south, and connected the seaside area with the fertile agricultural region of the inland.

THE REGION OF CAMPANIA



Source: Oxford University Press

SOURCE 2 The location of Pompeii, Herculaneum and other sites mentioned in ancient sources

Sources 3, 4 and 5 comment on or describe the geographical setting and natural features of Campania.

SOURCE 3

The city is in a pleasant bay, some distance from the open sea, and bounded by the shores of Surrentum and Stabiae on one side and of Herculaneum on the other; the shores meet there.

Seneca, *Naturales Quaestiones*, VI, 1.1
(trans. T.H. Corcoran, Loeb Classical Library, Harvard University Press, 1972)

SOURCE 4

Next comes Campania, a region blessed by fortune. From this bay onwards, you find vine-growing hills and a noble tippole of wine famed throughout the world. Over this area the gods of wine and grain fought their hardest or so tradition tells us. The territories for Setine wine and Caecuban [highly regarded wines] begin here; beyond these lie Falernum and Calenum. Then come the Massic mountains, and those of Gauranum and Surrentum. There lie spread the fields of Leborinum with their fine harvest of grain. These shores are watered by warm springs; they are famed beyond any other for their shellfish and their fine fish. Nowhere do olives produce more oil – the production strives to match the demands of human pleasure.

Pliny the Elder, *Natural History*, 3.60
(trans. H. Rackham, Loeb Classical Library, Harvard University Press, 1940)

SOURCE 5

This is Vesuvius, shaded yesterday with green vines, here had its far famed grapes filled the dripping vats. These ridges Bacchus loved more than the hills of Nyssa, on this mount of late the satyrs set afoot their dances. This was the haunt of Venus, more pleasant to her than Lacedaemon [Sparta]; this place [Herculaneum] was made glorious by the name of Hercules.

Martial, *Epigrams*, IV, 44
(trans. D.R. Shackleton Bailey, Loeb Classical Library, Harvard University Press, 1993)



SOURCE 6 'Bacchus and Mount Vesuvius', a wall painting from a household shrine in the House of the Centenary at Pompeii

Plans of Pompeii and Herculaneum

The town of Pompeii is small by Roman standards, covering an area of 66 hectares surrounded by defensive walls. It is irregularly shaped and built on terrain that slopes from 10 metres up to 40 metres above sea level. Over time, four main areas were developed: the Forum, the *insulae* or blocks fronting the Via Stabiana, Region VI and the eastern area. The earliest areas that were developed were those around the Forum and the Via Stabiana *insulae*, and these were heavily influenced by the Greek principles of urban planning. The grid pattern, developed in other early Roman towns, was not as precisely applied in Pompeii. The Greek influence can be seen in the regular layout of the streets and roads that divided the town into *insulae*. These blocks varied in size from 850 square metres to 5500 square metres. Some of the blocks contained only one house, while others contained a dozen or more houses. Herculaneum followed the classical layout of Greek towns with narrow straight streets that divide the town into *insulae*.

Important features of both towns include the following:

- **Walls:** Throughout its early history, Pompeii was surrounded by a series of defensive stone walls with 12 towers and 8 gateways leading into the town. When Pompeii became a Roman colony, defensive walls lost their importance and some sections were demolished to make way for housing. Herculaneum had a sea wall, with large vaulted chambers for boats.
- **Gates:** City gates were positioned at the end of the main thoroughfares. The most impressive examples of gateways in Pompeii are the Marine Gate and the Herculaneum Gate.

■ ***insula* (pl. *insulae*)**
a multi-storeyed apartment or tenement block with taverns, shops and businesses on the ground floor and living space on the higher floors; the name also refers to a block of various buildings at Pompeii surrounded on four sides by streets

■ **tufa**
volcanic ash
hardened with water

■ **aedile**
a magistrate whose
duties included
maintenance of town
infrastructure

- *Streets and roads*: Pompeii demonstrates Roman skill in road making. Roman paving techniques used polygonal blocks of basalt and raised footpaths on either side of the roads. Kerbing was made of basalt or **tufa**. Stepping stones were provided for pedestrians while still giving access to wheeled traffic (see Source 8). In this way people could cross the roads without stepping in sewage and waste. Deep grooves in the roads can still be seen, indicating the volume of ancient traffic. The streets in Herculaneum had less traffic and more efficient drainage and sewerage systems.

The Romans had different names for different types of streets; for example, 'via' is a main highway from the city gate. In Pompeii, the Via dell'Abbondanza is one of the principal roads or *decumani* running the length of the town. *Decumani* were roads running from east to west, while the *cardines* ran north to south and met at right angles. Shrines and water fountains (*nymphaea*) were often placed at these crossroads.

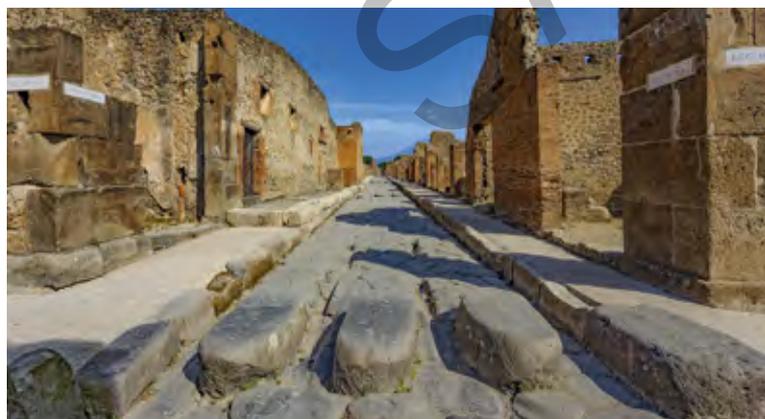
The Romans legislated that streets had to be a minimum of 5 metres wide. In Pompeii, most streets conformed to this law. In Herculaneum, however, some streets were only 2.5 metres wide, while others were 7 metres. The main street in Herculaneum was used as its Forum. Posts were often erected as barriers at the entrance to roads to prevent access. The magistrates responsible for the maintenance of streets and roads were the **aediles**.

Reading the plans

Archaeologist Giuseppe Fiorelli introduced a system to locate houses and buildings on plans of the area. He divided Pompeii into nine regions and numbered each separate block or *insula* within a region. Each doorway in an *insula* was also given a number. According to this system, the House of Julia Felix became II, 4, 2; that is, located in region II, *insula* 4, doorway 2. Herculaneum was treated in a similar way, but its smaller size removed the need to divide the town into regions.



SOURCE 7 A streetscape in Herculaneum



SOURCE 8 A road in Pompeii showing its stepping stones

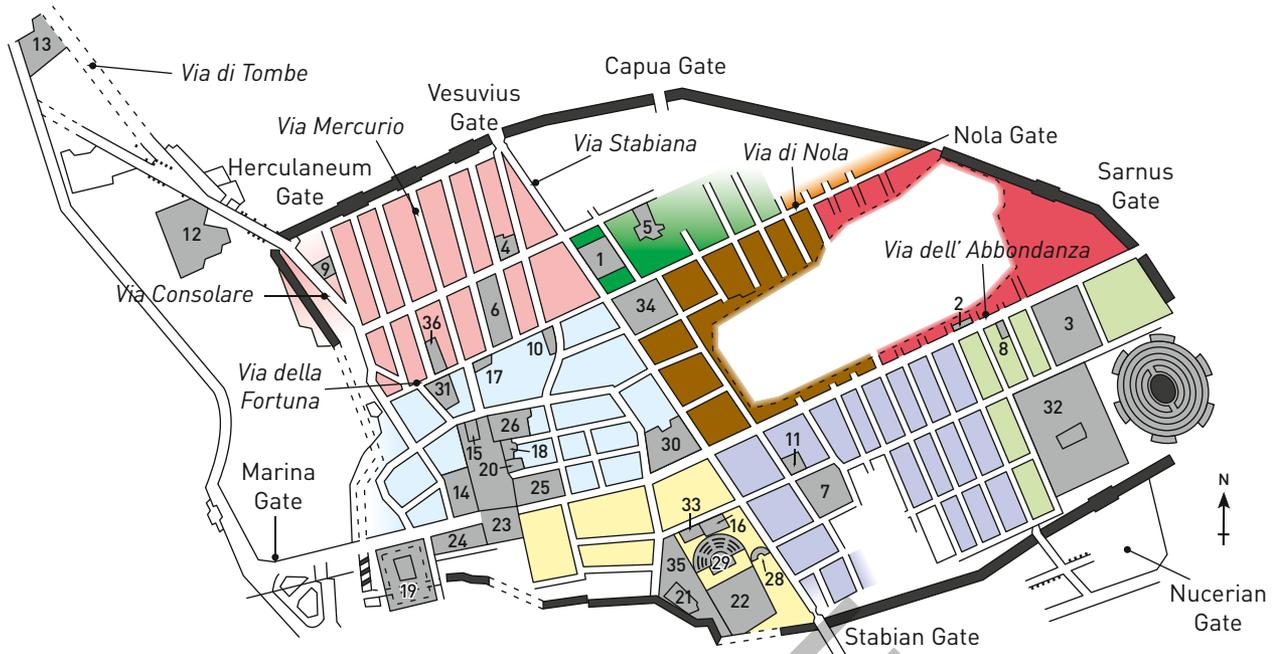
1.1 Understanding and using the sources

Sources 4–6

- 1 Using Pliny's description, list the natural resources of the region.
- 2 According to Martial, why was Mount Vesuvius important to the people of Pompeii?
- 3 How does the wall painting in Source 6 illustrate the written description in Source 5?

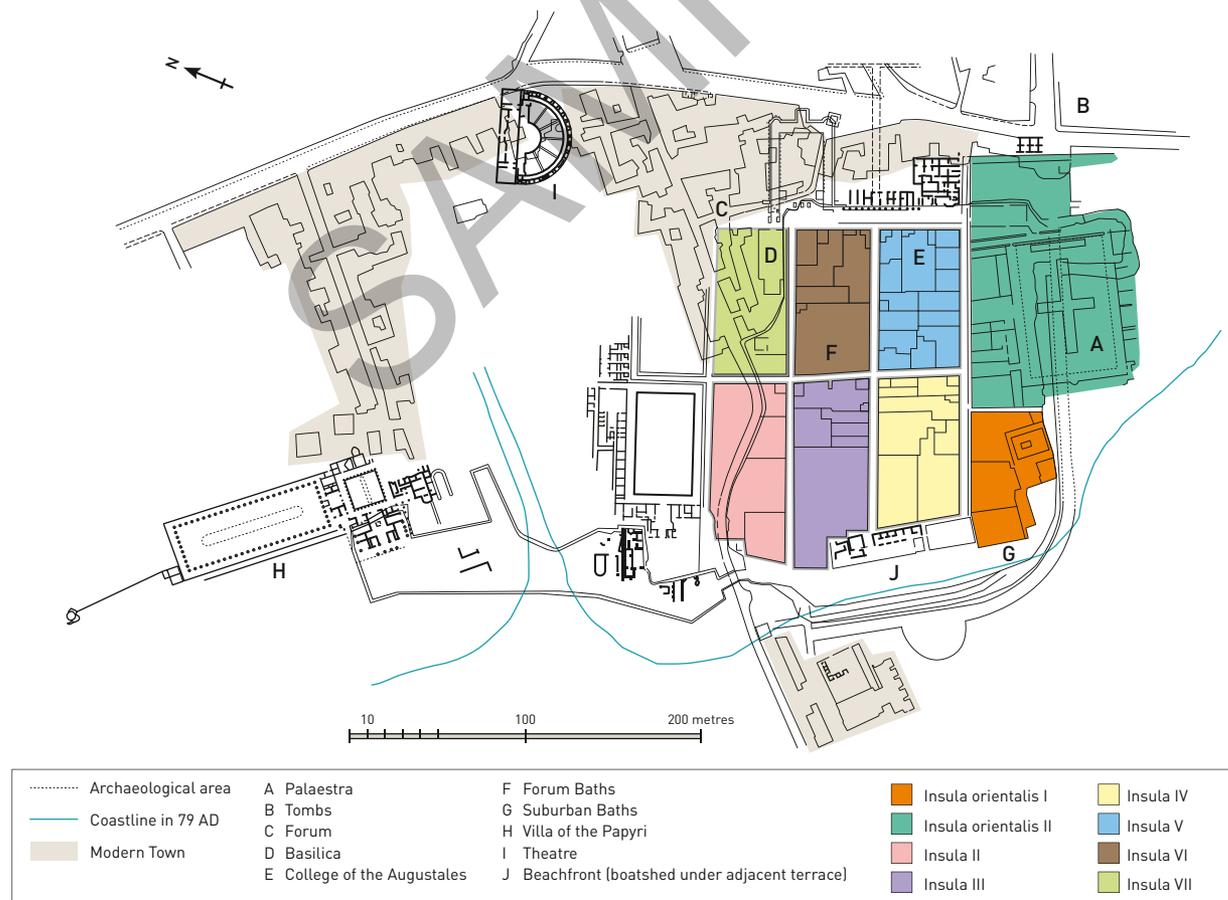
1.1 Check your learning

- 1 How does Pompeii demonstrate Roman skill in road making?
- 2 What were the advantages of Fiorelli's system of locating houses and buildings?



1 House of Caecilius Jucundus	10 House of the Ancient Hunt	19 Temple of Venus	28 Small theatre	Region I	Region VI
2 House of the Moralist	11 House of L.C. Secundus	20 Temple of Vespasian	29 Large theatre	Region II	Region VII
3 House of Julia Felix	12 Villa of Cicero	21 Doric Temple	30 Stabian Baths	Region III	Region VIII
4 House of the Vettii	13 Villa of the Mysteries	22 Gladiators' Barracks	31 Forum Baths	Region IV	Region IX
5 House of the Silver Wedding	14 Temple of Apollo	23 Forum	32 Great Palaestra	Region V	
6 House of the Faun	15 Temple of Jupiter	24 Basilica	33 Small Palaestra		
7 House of Menander	16 Temple of Isis	25 Building of Eumachia	34 Central Baths		
8 House of Octavius Quarto	17 Temple of Fortuna Augusta	26 Macellum	35 Triangular Forum		
9 House of the Surgeon	18 Temple of Lares	27 Amphitheatre	36 House of the Tragic Poet		

SOURCE 9 A plan of Pompeii



..... Archaeological area	A Palaestra	F Forum Baths	Insula orientalis I	Insula IV
— Coastline in 79 AD	B Tombs	G Suburban Baths	Insula orientalis II	Insula V
■ Modern Town	C Forum	H Villa of the Papyri	Insula II	Insula VI
	D Basilica	I Theatre	Insula III	Insula VII
	E College of the Augustales	J Beachfront (boatshed under adjacent terrace)		

SOURCE 10 A plan of Herculaneum

The eruption of AD 79 and its impact

The region of Campania was an unstable volcanic area prone to earth tremors, fluctuating watertable levels and thermal springs. Just 40 kilometres from Herculaneum were the Phlegraean Fields, an area known for hot mineral springs. Mount Vesuvius had not erupted in living memory, so when the top of the mountain exploded on 24 August AD 79, no one realised that it was the beginning of a disaster of catastrophic proportions. The statistics are sobering:

- A cloud of volcanic gas, ash and stones rose to heights of up to 30 kilometres.
- Molten rock and pumice ejected at a rate of 1.5 million tonnes per second.
- The thermal energy released was 100 000 times greater than the atomic bomb that destroyed Hiroshima.
- Possibly thousands of people died.
- The settlements of Pompeii, Herculaneum, Oplontis and Stabiae were completely buried.

The people of Pompeii and Herculaneum apparently did not connect earthquakes and tremors with volcanic activity from Vesuvius. On 5 February AD 62, a violent earthquake severely damaged both Pompeii and Herculaneum. A subsequent earthquake was recorded in AD 64 by the Roman writers Suetonius and Tacitus. Another warning sign was that the water supply had been interrupted in Pompeii by seismic activity.

Phases in the eruption of Vesuvius in AD 79

Vulcanologists have made a close study of Mount Vesuvius, including detailed **stratigraphic** analysis, and have established the main phases of the eruption as it occurred in AD 79. Thin black layers in the geological **strata** have been identified as **pyroclastic surges**. A pyroclastic surge is a low-density, turbulent cloud of hot ash and rock that billows over the terrain, barely touching the ground. It travels at incredibly high speeds (up to 300 kilometres per hour).

Pyroclastic flows occurred in conjunction with the surges. A pyroclastic flow is a much denser, hotter, dry avalanche of ground-hugging molten rock, pumice and gases that moves more slowly than a surge, up to 50 kilometres per hour. The term **nuées ardentes** is also used to describe the surges that destroyed Pompeii. The eruption of Vesuvius is unique because there were six layers in the strata, indicating that there were six pyroclastic surges. The discovery of this geological data has led scholars to revise their initial theories about how the inhabitants of Pompeii and Herculaneum died. Source 11 summarises the main phases of the eruption.

The destruction of Herculaneum

Herculaneum lay directly under Mount Vesuvius, only 7 kilometres from its peak, and was situated on a promontory between two streams that flowed down the slopes of the mountain. It suffered a different, more horrific, fate than Pompeii. The people of Herculaneum would certainly have been terrified by the initial explosion, shock waves and earth tremors in the first stage of the eruption. Because Herculaneum was upwind of the fallout, the pumice fall in the first few hours was moderately light. However, in the next and most destructive phase of the eruption, Herculaneum bore the full brunt of the succession of pyroclastic surges. The first surge, arriving no more than 5 minutes after the collapse of the eruption column, dumped

■ stratigraphic

relating to the order or arrangement of strata or layers, in this case the layers of volcanic ash deposited on Pompeii

■ strata (s. stratum)

the layers of material built up or deposited at a site

■ pyroclastic surge

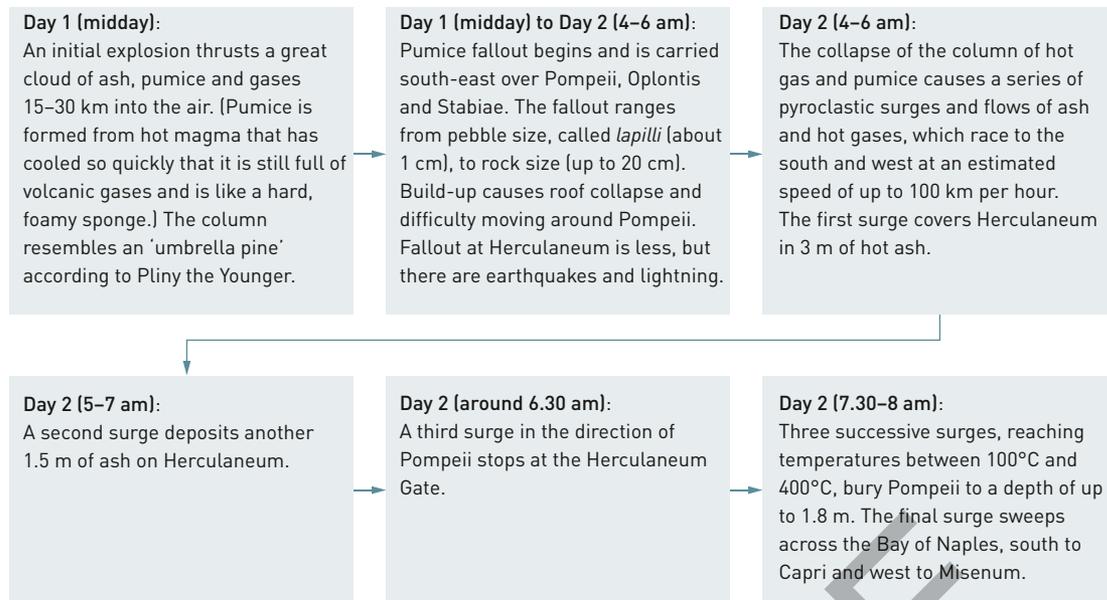
a low-density turbulent cloud of hot ash and rock that billows over the ground travelling at incredibly high speeds of up to 300 km per hour

■ pyroclastic flow

a dense, hot, dry avalanche of ground-hugging molten rock, pumice and gas that moves more slowly than a surge, reaching up to 50 km per hour

■ nuées ardentes

French for 'burning clouds', these are white-hot clouds of gas, ash and lava fragments ejected from a volcano, typically as part of a pyroclastic flow



SOURCE 11 The main phases of the eruption of Vesuvius

3 metres of hot ash on the town. The following five surges and flows destroyed buildings and carbonised timber and other organic matter. In this final phase, the city was buried up to a depth of 23 metres and the coastline was extended by about 400 metres.

What happened at Pompeii?

Its distance from the volcano meant that Pompeii escaped the first two surges, and the third stopped at the Herculaneum Gate. The fourth surge, reaching temperatures of up to 400°C, possibly accompanied by toxic gases, penetrated the whole town. Two more surges destroyed most of the structures that were still above the pumice layer. The amount of ash deposited varied from about 1.8 metres in the north, to about 60 centimetres in the south.

Pliny the Younger’s eyewitness account

Pliny the Younger, aged 17, was staying at Misenum (30 kilometres from Pompeii) with his uncle Pliny the Elder, the admiral of the fleet. When the eruption occurred, Pliny the Elder sailed to Stabiae, 5 kilometres south of Pompeii, to offer assistance. He stayed there overnight at the house of his friend, Pomponianus. Pliny the Younger decided to stay behind to study and subsequently was able to give an eyewitness account of the eruption.

Historians usually value contemporary accounts of an event. Pliny’s account of the Vesuvian eruption is detailed, graphic and remarkably objective. It is also the only written source we have for this cataclysmic event. However, there are some issues that need to be raised about the reliability of Pliny’s account:

- He wrote his description in the form of two letters to his friend Tacitus (a Roman historian) about 25 years after the event.
- There appears to be some exaggeration of Pliny the Elder’s role in the events during the eruption.
- A significant omission is Pliny the Younger’s failure to mention the year of the eruption.

In Source 12, Pliny the Younger gives an account of his first view of the erupting volcano.

SOURCE 12

My uncle was stationed at Misenum in active command of the fleet ... The ninth day before the Kalends of September [24 August] in the early afternoon, my mother drew his attention to a cloud of unusual size and appearance ... He called for his shoes and climbed up to a place that would give him the best view of the phenomenon. It was not clear at that distance from which mountain the cloud was rising [it was afterwards known to be Vesuvius]. Its general appearance can best be expressed as being like a pine rather than any other tree, for it rose to a great height on a sort of trunk and then split off into branches, I imagine because it was thrust upwards by the first blast and then left unsupported as the pressure subsided, or else it was borne down by its own weight so that it spread out and gradually dispersed. In places it looked white, elsewhere blotched and dirty, according to the amount of soil and ashes it carried with it.

Pliny the Younger, *Letters and Panegyricus*, Vol. 1, Book VI, xvi, 4–7
(Loeb Classical Library, William Heinemann, London, 1969)

Pliny the Elder set out with his fleet of warships on his rescue mission to Stabiae. Despite the hot ash and pumice that had begun to fall, he crossed the Gulf of Naples, taking note of aspects of the eruption as he went. At Stabiae he made further observations of the progress of the eruption. Unfortunately, while there, he succumbed to the smoke and fumes accompanying the eruption and died on the beach. Back at Misenum, Pliny the Younger joined the crowd trying to flee the town. He records the unaccountable movement of the ground, the receding of the sea and the fiery cloud hanging above the volcano. He also describes what happened when the fleeing inhabitants were overcome by the cloud spreading out from the volcano.

Date of eruption contested

The traditional date of the eruption is 24 August AD 79. This is based on an 11th-century summary of the work of Cassius Dio, a Roman writer in the 3rd century AD. Dio's work is flawed because of many factual errors, yet he does at least provide a year. Pliny the Younger's account (see Source 12) appears to give the date; that is, the ninth day before the Kalends of September, or 24 August. However, more than a dozen versions of his text give dates ranging from August to November. Recently, debate has arisen with some scholars favouring autumn for the eruption rather than the summer of that year.

Arguments in favour of a summer date include:

- the discovery of the leaves of deciduous trees
- evidence of summer-flowering herbs found at Villa A at Oplontis
- evidence of summer-ripening broad beans found at the House of the Chaste Lovers at Pompeii
- the fact that the last batch of *garum* from Pompeii was made with a type of fish that was plentiful in July (i.e. summer).

Arguments in favour of an autumn date cite the discovery of late autumn-ripening fruits such as pomegranates.

The most convincing evidence is the hoard of coins found in the House of the Golden Bracelet in 1974, which contained a silver denarius of Titus recording his seventh consulship. This dates the coin to AD 79. The reverse of the coin records Titus' acclamation as **imperator**

■ **garum**
thick, salty fish sauce

■ **imperator**
a Latin word originally meaning commander, but later incorporated into the titles of the emperor

for the 15th time. Other **epigraphic** evidence points to this happening no earlier than September of that year. According to this evidence, the eruption of Vesuvius is most likely to have taken place in the autumn of AD 79, that is, later the same year.

How did people die at Pompeii and Herculaneum?

The initial reaction of the people to the eruption determined their fate. Those who took to their heels to escape the city when the volcano first exploded might well have survived, provided they reached a safe distance. Those who chose to stay inside their homes or other buildings sealed their fate. At Pompeii, at least 600 people perished when the roofs collapsed under the weight of the pumice and rock that rained down during the eruption. Those who abandoned the buildings and climbed out onto the roofs were caught in the fourth pyroclastic surge, the one that overwhelmed the city. Some of these people died of asphyxiation, others of **thermal shock**. The majority of the population probably managed to escape the city, but they could well have died in the surrounding countryside, not realising how far they had to go to escape the surges and flows.

It was a different story at Herculaneum. Until recently it had been assumed that nearly all the inhabitants had escaped because few skeletal remains had been found. However, in 1982, remains were discovered of 300 people who had been sheltering on the beach or in structures, perhaps boathouses, in the area. It was initially thought that they died from suffocation caused by the volcanic ash. Italian scholars now believe that these people were killed by thermal or **fulminant shock** (see Source 13).

■ **epigraphic / epigraphical**
the study of inscriptions on stone or metal

■ **thermal shock**
a large and rapid change in temperature that can have dangerous effects on living organisms

■ **fulminant shock**
a cause of death associated with intense heat



SOURCE 13 Skeletons of victims of the eruption were discovered in the boathouses at Herculaneum.

SOURCE 14

For at least two centuries suffocation was believed to have killed the inhabitants of Pompeii and Herculaneum assuming as 'smoking gun' evidence, the self-protective posture of victims at death, as apparently testified by hundreds of plaster casts. In 1997–98, new excavations at Herculaneum were based on a multidisciplinary approach aimed to identify the causes of death through the effects of the pyroclastic surge on both body and bones of victims ... The overall evidence showed that a 500°C hot surge caused the instant death of the Herculaneum residents as a result of fulminant shock. They were killed in less than a fraction of a second, before they had time to display a defensive reaction. Their hands and feet underwent thermally induced contraction in about one second, and the positions of their bodies were fixed by the sudden deflation of the ash bed occurring over the next few seconds. Their soft tissues were vaporized, their skulls exploded, and their bones and teeth broke. The temperature then fell over a few minutes causing the ash bed to cool and harden, thus preserving the skeletons as 'frozen' in their life-like original stance.

P. Petrone, M. Niola, P. di Lorenzo, V. Graziano, M. Paternóster & C. Buccelli, 'A new forensic approach to past mass disasters: the human victims of Vesuvius', *Austin Journal of Forensic Science and Criminology*, October 2014

1.2 Understanding and using the sources

Source 12

- 1 What were the first signs of the eruption that Pliny the Younger noted?
- 2 What did Pliny the Younger compare the eruption to? Why?
- 3 What information does Pliny the Younger give about the beginning of the eruption?
- 4 How do you think Pliny the Younger knew the details of what happened at this time? How does this affect the reliability of his 'eyewitness' account?

Sources 13 & 14

- 5 Why were victims at Pompeii and Herculaneum originally thought to have died from suffocation?
- 6 What was the effect of a pyroclastic surge on the bodies and bones of victims?

1.2 Check your learning

- 1 Discuss the following:
 - a What has stratigraphic analysis shown about the stages of the eruption of Vesuvius in AD 79?
 - b Explain the difference between pyroclastic surges and flows.
 - c Explain the different causes of death in Pompeii and Herculaneum.
 - d Does the evidence support a summer or autumn date for the eruption of Vesuvius? How?
- 2 Summarise the differences between the impact of the eruption on Pompeii and Herculaneum and their inhabitants by copying and completing the table.

IMPACT OF ERUPTION	POMPEII	HERCULANEUM
Impact on the site		
Cause of death of inhabitants		

1.3

Early discoveries and the changing nature of excavations in the 19th and 20th centuries

After the eruption of AD 79, the cities of Vesuvius lay buried for over a thousand years. People living in Resina, a village that had grown up on the site of Herculaneum, sometimes uncovered artefacts and caught glimpses of buried ruins. In 1709, a well shaft was sunk into what would be revealed as the theatre at Herculaneum. A period of treasure hunting when finds were given to the Austrian king who ruled the area. An engineer, Rocque Joaquin de Alcubierre,

SOURCE 15 An overview of 19th- and 20th-century excavations at Pompeii and Herculaneum

ARCHAEOLOGIST	TIME WORKING AT POMPEII/HERCULANEUM	ARCHAEOLOGICAL METHOD USED OR DEVELOPED	CONTRIBUTION
Giuseppe Fiorelli	19th century Directed Pompeii excavation 1863–1875	<ul style="list-style-type: none"> Pioneered the study of stratigraphy of the site Initiated a system of top-down excavation of houses, preserving finds more effectively and enabling restoration of buildings and their interiors 	<ul style="list-style-type: none"> Wrote a three-volume work entitled <i>History of Pompeian Antiques</i> (1860–64) Studied materials and building methods Initiated the technique of making plaster casts of victims Instituted the system of <i>regiones</i>, <i>insulae</i> and <i>domus</i>
August Mau	19th and 20th centuries		<ul style="list-style-type: none"> Created the ‘four-style’ system for categorising frescoes, which is still used today
Vittorio Spinazzola	1910–1924	<ul style="list-style-type: none"> Focused on the southern region of the city, including the amphitheatre and Via dell’Abbondanza Was interested in discovering how the town was planned rather than simply excavating the site 	<ul style="list-style-type: none"> Discovered many commercial enterprises, such as the Fullery of Stephanus, inns and shops
Amedeo Maiuri	1924–1961 Chief archaeologist of Pompeii	<ul style="list-style-type: none"> Pioneered excavation below the destruction level Destroyed the destruction level to investigate life before the eruption 	<ul style="list-style-type: none"> Has advanced knowledge of pre-eruption Pompeii
Alfonso De Franciscis	1964 Became director of excavations	<ul style="list-style-type: none"> Emphasised restoration of uncovered buildings 	<ul style="list-style-type: none"> Uncovered the House of C. Julius Polybius, the town house of M. Fabius Rufus and the Villa at Oplontis
Baldassare Conticello	1984	<ul style="list-style-type: none"> Undertook extensive and systematic restoration of buildings in Regio I and II 	<ul style="list-style-type: none"> Excavated the House of the Chaste Lovers
Pietro Giovanni Guzzo	1994 Became director of excavations	<ul style="list-style-type: none"> Faced management and financial problems related to excavations and restoration 	<ul style="list-style-type: none"> Excavated outside the Porta Stabia and in Murecine, where the Hospitium dei Sulpici has been uncovered



SOURCE 16 A poster for the 2014 film *Pompeii*, directed by Paul W.S. Anderson

was put in charge of digging a series of tunnels underneath and through Herculaneum. The theatre, the Villa of the Papyri, the palaestra, shops and houses were all explored at this time. Karl Weber, Alcubierre's assistant, approached the excavations systematically, devising a method of excavating whole rooms with particular attention to context. This inspired modern archaeology's emphasis on context and provenance. Source 15 summarises the changing nature of excavations in the 19th and 20th centuries.

Representations of Pompeii and Herculaneum over time

The drama and tragedy of the events at Pompeii and Herculaneum in AD 79 have inspired artists and writers over time. Pliny the Younger's written account is the first known representation that provides us with our most detailed primary evidence. From the 18th century onwards, European artists have produced engravings and paintings that portray elements of his account. For example, Karl Briullov's 1830 masterpiece, *The Last Days of Pompeii*, which was famous in its day, depicts the terrified inhabitants covering beneath a sky filled with fire and smoke, or trying to rescue those crushed by falling masonry. The painting can be seen today

in the Russian Museum in Saint Petersburg. Some artists have depicted Pompeii and Herculaneum as ruins, while others have concentrated on representing the archaeological excavations being conducted there. Pompeii has been depicted many times in television and film productions (see Source 16, for example).

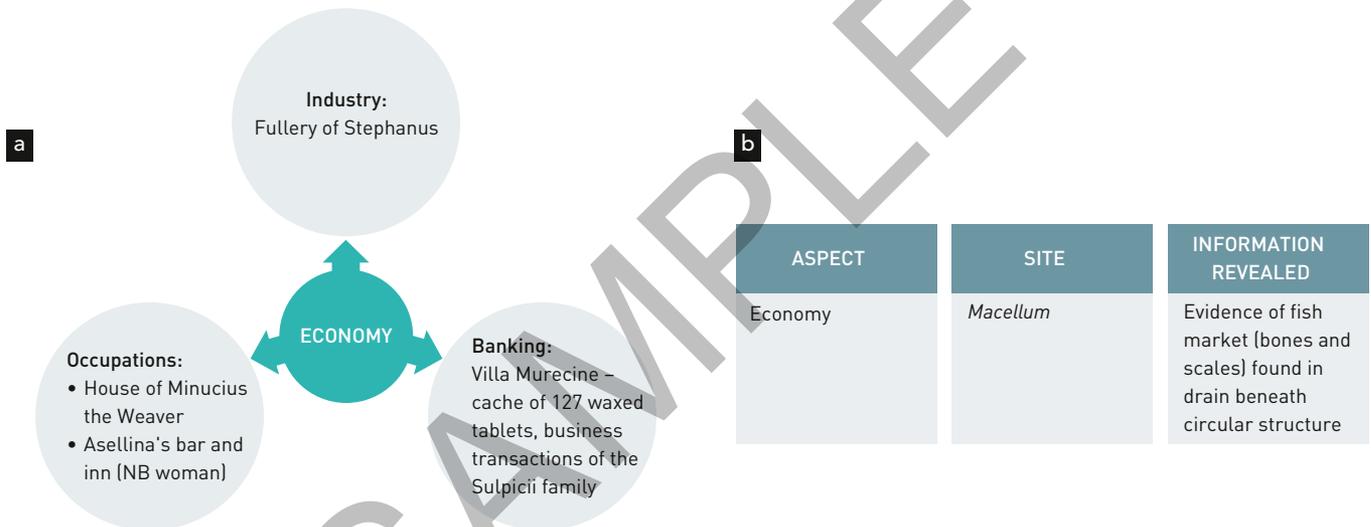
1.3 Check your learning

- 1 Choose one 19th- and one 20th-century archaeologist from Source 15. Find out more details about their methods and contributions to our understanding of Pompeii and Herculaneum.
- 2 Find representations of Pompeii and Herculaneum in popular culture, including art, literature, film and museum exhibitions. Where you can, share your findings with your fellow students. You might look for:
 - artists – Paul Alfred de Curzon, William Hamilton, Jacob Philipp Hackert, Sir Edward John Poynter
 - writers – Théophile Gautier, Stendhal, François Mazoir, Edward Bulwer-Lytton, Robert Harris
 - films – *The Last Days of Pompeii* (1935, 1959 and 1984 versions), *Pompeii* (2014), *Pompeii: The Last Day* (2003), *Doctor Who 'The Fires of Pompeii'* (2008)
 - museum exhibitions – *Life and Death in Pompeii and Herculaneum* (British Museum, 2013).
- 3 Discuss the different ways in which Pompeii and Herculaneum have been represented. How can you account for the differences?

1.4

Investigating and interpreting the sources for Pompeii and Herculaneum

The various parts of Pompeii, Herculaneum and the other towns buried during the AD 79 eruption reveal information about different aspects of life in these places. This chapter will look at all the aspects of life in Pompeii and Herculaneum that you need to know about. A useful technique for using this chapter is to keep a table or mind map for each aspect, in which you record the sites that give relevant information about that aspect and the main features of the information. This will help you to remember the sources to use in writing an answer on a particular aspect. It will also reinforce that everything we know comes from conclusions drawn from the sources. Source 17 gives two templates you could use.



SOURCE 17 Templates for recording sources: (a) a mind map; (b) a table

1.4 Profile

The Forum of Pompeii

The Forum, the centre of public life in Pompeii, was a large rectangular space measuring 137 metres by 47 metres surrounded by public buildings. This was where the majority of political, administrative, legal, commercial, religious and social activities took place. These included:

- the election of magistrates
- religious ceremonies
- the announcement of local edicts and the latest news from Rome
- trade in goods such as grain, cloth and wool
- regulation of weights and measures by aediles
- markets
- the hire of lawyers and doctors
- business conducted by patrons who were followed by their entourage of clients
- gladiatorial games (until the large amphitheatre was built).

■ **Doric column**

a type of ancient Greek column featuring a smooth or fluted column and a smooth, round capital

■ **travertine**

a type of marble used for building

■ **Hellenistic**

relating to Greek and Mediterranean history between 323 and 31 BC

Pompeii was planned with the Forum as its central focus. It was located at a crossroads with access by two staircases from the Via Marina or the Via dell'Abbondanza. It was originally a marketplace, but after the Second Punic War (3rd century BC), population and trade increased and the Forum was rebuilt. Monuments were built on the east, west and south sides of the Forum, while a two-storeyed colonnade with **Doric columns** decorated the south side. The area was paved in grey tufa. An interesting feature of Pompeian paving was that the magistrates responsible for the work had their names inscribed in lead. In the Augustan period, **travertine** stone replaced the paving of tufa slabs.

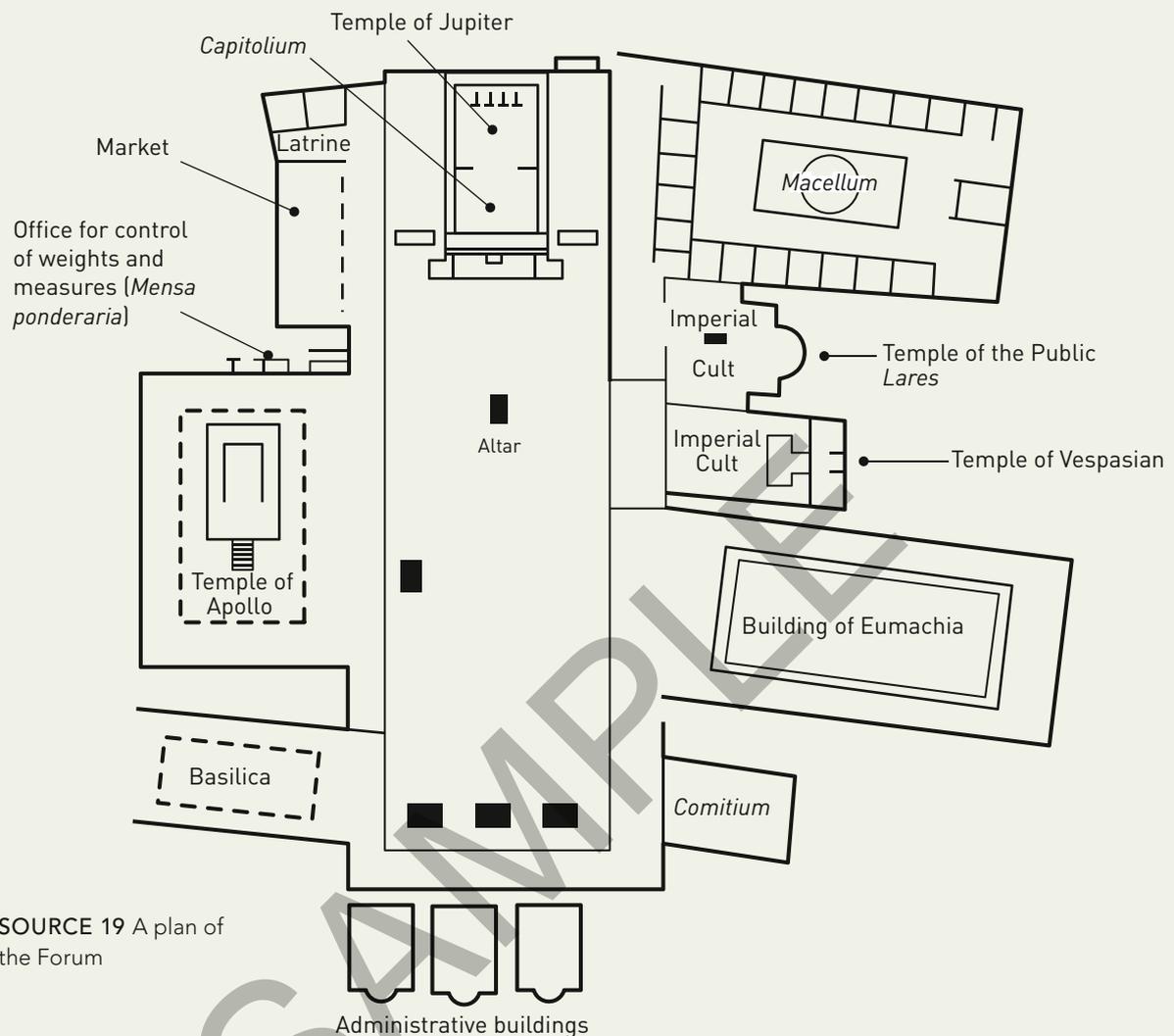
Features of the Forum at Pompeii include the following:

- The north side of the Forum was dominated by the temple to Jupiter, Juno and Minerva.
- The south side was the location of government buildings, sometimes referred to as the Hall of *Duumviri*, the *Curia* and the Hall of *Aediles*.
- The west side featured the Basilica, the *suggestum* (a platform where political candidates gave speeches and canvassed support for elections), the *Mensa ponderaria* (where officials supervised the accuracy of weights and measures used in the markets), the Temple of Apollo and the cereals market or *forum holitorium*.
- The east side featured the *macellum* (a meat and fish market), the Temple of the Public *Lares*, the Temple of Vespasian and the Building of Eumachia (these replaced the shops on the east side of the Forum during the imperial period), and the *Comitium* (where the people's assembly met).
- Statues – in its early history, the open area of the Forum contained equestrian statues, i.e. statues of prominent local officials on horseback. From the time of Augustus, imperial monuments replaced these statues. A statue of Augustus stood in the centre of the space.

There was a strong **Hellenistic** influence on the Forum until Pompeii became a Roman colony. It then underwent a change to reflect the needs of the veterans and the new inhabitants. The Forum was badly damaged by the AD 62 earthquake, and by AD 79 only a little restoration work had been undertaken. Some work had been done on the Temple of Vespasian and the Temple of the Public *Lares*.



SOURCE 18
The Forum at
Pompeii today



SOURCE 19 A plan of the Forum



SOURCE 20 A relief from the house of Caecilius Jucundus, showing buildings on the north side of the Forum during the AD 62 earthquake – it shows the Temple of Jupiter leaning to one side

1.4 Profile tasks

- 1 The most elaborate structure in the Forum was the Basilica. Research the Basilica's architecture and function. What evidence is available?
- 2 The Forum at Herculaneum has been tentatively identified. Find out where it was and what we know about it.

1.5

The economy

The economies of Pompeii and Herculaneum were complex, comprising trade, commerce, industries and occupations, as well as agriculture. Something of the economic spirit of ancient Pompeii is captured in a piece of graffito that reads ‘All hail, profit!’ People of all classes appear to have agreed with this sentiment and involved themselves in the economy. Economic activities took place all over Pompeii and Herculaneum with little or no attempt made to restrict them to particular areas.

The role of the Forum in the economy

The Forum was the centre of public life in Pompeii. The Forum of Herculaneum would have played the same role. Several parts of the Forum of Pompeii had specific commercial purposes as summarised in Source 21.

■ **tholos**
a circular-shaped building from the ancient world

SOURCE 21 Commercial features of the Forum

PART OF THE FORUM	DESCRIPTION	ROLE IN THE ECONOMY
<i>Mensa ponderaria</i> – table of official weights and measures	<ul style="list-style-type: none"> A bench with nine holes of varying sizes for different measured amounts 	<ul style="list-style-type: none"> Used by officials to supervise the accuracy of weights and measures used in the markets
<i>Macellum</i>	<ul style="list-style-type: none"> A rectangular courtyard with a circular building or tholos in the centre Market stalls and shops on the north and south sides 	<ul style="list-style-type: none"> A meat and fish market – fish bones found in drains beneath the tholos are evidence for the latter
<i>Forum holitorium</i>	<ul style="list-style-type: none"> Located on the west side of the Forum 	<ul style="list-style-type: none"> A warehouse market for cereals and pulses
Building of Eumachia	<ul style="list-style-type: none"> A large brick building with marble features Features a statue of Eumachia 	<ul style="list-style-type: none"> Possibly used as a wool market or for sales of other commodities

Trade

Strabo tells us that Pompeii was the port for the towns of Nuceria and Nola, making it a trading centre, mostly for agricultural produce. There are implications for the size and nature of the port and the scale of trading activity that took place there based on whether it was a sea

port, as was once thought, or a river port according to more recent theories. Evidence exists to support both theories, indicating that Pompeii played an important role in the economy of the Campanian region. It is clear, however, that Herculaneum was a relatively small place with an economy that served local needs.

Imports to and exports from Pompeii can tell us about trade as well as about the inhabitants. Source 23 gives a summary of these activities.



SOURCE 22 The *Mensa ponderaria* from the Forum at Pompeii

IMPORTS

- Tableware (terra sigillata) from Puteoli
- Tableware from northern Italy, southern Gaul and Cyprus (a chest containing a large number of unused bowls and lamps was found in a house in Region 8)
- Wine from Kos, Crete, Rhodes, Turkey, Sicily, Palestine and central Italy
- Olive oil from Libya and Spain
- *Garum* from Spain

POMPEII

EXPORTS

- *Garum*
- Wine (Pompeian wine has been found in the United Kingdom)

SOURCE 23 Pompeii imports and exports

Commerce

There is substantial evidence of commerce in Pompeii. Shops were plentiful and many were located in the front rooms of the houses that lined the main thoroughfares. The relative lack of material remains found in these shops makes it difficult to determine what was sold in them. Shops that have been identified include:

- a mason's shop – from a wall painting depicting masons' tools (the owner's name was Diogenes)
- a carpenter's shop – from a wall painting depicting carpenters' tools.

In 2016, the French School at Rome excavated a shop outside the Herculaneum Gate at Pompeii. It had a staircase and furnace, so archaeologists think it may have been a place that manufactured bronze objects. Four skeletons of people trapped in the building at the time of the eruption were found in the shop as well.

Markets played an important role in the commerce of the city. The *macellum* and *forum holitorium* have been mentioned in Source 21. Not all shops or markets had permanent locations, however. Evidence from the *praedia* or estate of Julia Felix (see 1.8 Profile) makes it clear that there were temporary stalls where vendors sold goods such as shoes, cloth, metal vessels, fruit and vegetables. Such stalls are likely to have been set up in the Forum or in the surrounds of the amphitheatre. The latter would have sold refreshments to the spectators.

Bars and inns were also plentiful in Pompeii and were frequently located on main roads and near the gates. The many *thermopolia* acted as bars (see Source 46). The *dolia*, or large terracotta pots embedded in the counters of these establishments, used to be identified as containers for food and drink. Scholars now consider this to be unlikely due to the difficulties involved with cleaning them. Their purpose was more likely to be the storage of dried food such as nuts, grains, dried fruits and vegetables. The carbonised remains of nuts in a *dolium* from Herculaneum are seen as evidence for this. Such establishments clearly served the many needs of the inhabitants for food and drink. The bar run by Asellina is a



SOURCE 24 A storage room with wine amphorae, part of a wine and cereals shop attached to the House of the Neptune Mosaic in Herculaneum

■ **amphora**
(*pl. amphorae*)
a two-handled pottery storage jar with an oval body tapering to a point at the base

■ **thermopolium**
(*pl. thermopolia*)
food stall

good example of a nearly complete *thermopolium*. Buildings identified as inns have been found near the Nuceria Gate and the Forum. They consist of courtyards and upper floor rooms. Other inns no doubt existed but are hard to identify without specific evidence.

Industry

Industry played an important role in the economies of Pompeii and Herculaneum. Agriculture, wine and olive oil production were predominant. Another industry at Pompeii was cloth manufacture. Urine as a source of ammonia was used as part of the process and the fullers left large jars outside their establishments where people could make deposits that were then used in the bleaching process (e.g. the Fullery of Stephanus). Tanners, goldsmiths and silversmiths and dye-makers also used urine in their work.

Occupations

Evidence from both Pompeii and Herculaneum indicates the varied occupations of the population. Pompeii had a large community of artisans that included artists, metalworkers, potters and glassblowers. There were tradesmen, wealthy merchants, manufacturers and service industries employing bakers, innkeepers, bath attendants and brothel keepers. Artwork often depicted *putti*, or cupids, engaged in the various crafts and occupations of the townspeople. In some Pompeian houses, the **peristyle** operated as a manufacturing workshop. For example, in the house of M. Terentius Eudoxus, there was a weaving workshop, run by male and female slaves.

■ **peristyle**
a row of columns enclosing a court or other space, or the space surrounded by these columns

■ **cache**
valuable items concealed in a hiding place

Banking and money lending

A major source for this aspect of the economy is the **cache** of 127 waxed writing tablets that was found at the Villa Murecine in 1959. These tablets were the business transactions of the Sulpicii family, a family of bankers and money lenders. The tablets appear to have been written between AD 26 and AD 62, and refer to commercial transactions that took place in the nearby port of Puteoli. The tablets are small in size and contain details of loans, IOUs and receipts. Tablet 60 records the details of a loan to a woman.

SOURCE 25 The interior of the *macellum* showing the remains of the tholos



SOURCE 26 Tablet 60 from Villa Murecine Cache

Accounts of Titinia Anthracis. Paid out to Euplia of Milo, daughter of Theodorus, 1600 **sesterces**, with the authority of her tutor, Epichares of Athens, son of Aphrodisius. She requested and received that money in cash from the chest at the creditor's home. Received money from the chest: 1600 sesterces. As he was questioned by Titinia Anthracis, Epichares of Athens, son of Aphrodisius, declared that on behalf of Euplia of Milo, daughter of Theodorus, he would stand surety for the repayment of those 1600 sesterces, which are written above.

On the 13th day before the kalends of April [20 March AD 43], under the **consuls** Sextus Palpellius Hister and Lucius Pedanius Secundus.

In J. Andreau, *Banking and Business in the Roman World*, Cambridge University Press, 1999, p. 33

■ **sesterce**
a bronze or silver Roman coin valued at a quarter of a denarius; also referred to as a 'sestertius'

■ **consul**
one of two annually elected chief magistrates in the Roman political system

1.5 Understanding and using the sources

Source 26

- 1 Who is the borrower? From whom are they borrowing?
- 2 Who is Epichares and what is his role in the transaction?
- 3 What other information about Pompeii can historians gain from this document?

1.5 Check your learning

- 1 Considering that wine, oil, *garum* and tablewares were produced locally, why would the people from Pompeii import these items?
- 2 Why did the Pompeians import more goods than they exported?
- 3 Research Asellina's bar. Besides the information it reveals about the economy, what does it tell us about the role of women in Pompeii?
- 4 Research the various aspects of industry and production at Pompeii and Herculaneum and summarise what you learn in a table like the one below. You could do this task in groups. Aspects include vineyards, farms (*villae rusticae*), flower gardens, orchards, olive oil production, *garum* production, cloth manufacture, bakeries and perfume manufacture.

ASPECT	DETAILS	EVIDENCE

- 5 Find pictures of the wall paintings from the House of the Vettii that depict *putti* at work. What occupations are represented? What do these paintings reveal about the nature of the work involved? How reliable are they as evidence of occupations in Pompeii?
- 6 Using sources from this chapter and your own knowledge, write a response to the following: 'Interpret what the sources reveal of the types of economic activity that were conducted in Pompeii and Herculaneum.'
To help you plan your response:
 - identify the main types of economic activity that took place in Pompeii and Herculaneum
 - use these to structure your answer
 - draw meaning from a range of sources about the types of economic activity identified.

Social structure

The population of Pompeii before the eruption has been variously estimated at somewhere between 10 000 and 20 000 people, about 40 per cent of whom were slaves. The people of Pompeii and Herculaneum were born into particular social classes and had limited social mobility; that is, they could not easily change their social status by moving from one class to another. Source 27 summarises the features and rights of men, women and slaves in Pompeii and Herculaneum.

Men in Pompeii and Herculaneum

Freeborn men were the elite of Pompeii and Herculaneum. They owned the local land and also engaged in business within the town. They were the members of the *ordo decurionum* or town council and, as such, controlled public monies, buildings and spaces, and religion. Their privileges included the best seats in the theatre and amphitheatre, most statues and the best tombs.

Freedmen or *liberti* were male slaves who had been set free by their owners. Once free, many went into business for themselves and became wealthy in their own right. They were denied political office, however, and could only achieve influence by joining the priesthood of a cult. The most influential was the cult of the emperor, and an *Augustalis*, or priest of the emperor, was an office to aspire to (see 1.12 Religion). An interesting example of a freedman seeking political influence through his freeborn son comes from the rebuilding of the Temple of Isis following the earthquake in AD 62. This was done in the name of Numerius Popidius Celsinus, the freedman's 6-year-old child. Apparently the rebuilding of the temple was to ensure the son's admission to the *ordo decurionum*.

FREEBORN MEN (SOCIAL AND POLITICAL ELITE)

- Had full legal rights
- Could hold political office
- Included wealthy landowners and businessmen
- Could be members of the town council
- Controlled public finances, spaces and religion
- Had privileged seats in the amphitheatre and theatre
- Received honorary statues and tombs

FREEBORN WOMEN

- Could not hold formal political office
- Were under legal control of fathers or husbands
- Could own property
- Conducted businesses
- Constructed buildings and tombs
- Held priesthoods
- Supported electoral candidates
- Received honorary statues and tombs
- Ran the household
- Brought up children

FREEDMEN (*LIBERTI*)

- Men freed from slavery
- Often worked for former masters
- Many became wealthy and influential
- Voted in elections
- Owned businesses
- Participated in some religious cults
- Could become an *Augustalis* (priest of the cult of the emperor)
- Could not hold formal political office

FREEDWOMEN

- Women freed from slavery
- Could not hold formal political office
- Some worked for former masters

SLAVES

- Approximately 40 per cent of the population of Pompeii
- Little evidence of their lives remains
- Few houses had separate slave quarters
- Domestic work common
- Few tombstones attributed to slaves

SOURCE 27 The social structure of Pompeii

Women in Pompeii and Herculaneum

As with men, women in Pompeii and Herculaneum came from different social groups and had varying resources. From inscriptions we learn that there were rich women who were able to own property in their own right and manage their affairs without supervision by a male relative. They could also be priestesses of cults and support male candidates for political office.

SOURCE 28 Prominent women of Pompeii

WOMAN	INFORMATION	EVIDENCE
Poppaea Sabina	<ul style="list-style-type: none"> Married to the emperor Nero Her family owned the House of Menander and the House of the Gilded Cupids 	<ul style="list-style-type: none"> Owned a villa in Oplontis
Eumachia	<ul style="list-style-type: none"> Her family owned brickmaking works and vineyards 	<ul style="list-style-type: none"> Constructed the Eumachia building, a large public building in the Forum Dedicated this in her own name and in the name of her son, Marcus Numistrius Fronto
Umbricia Januaria	<ul style="list-style-type: none"> Possibly a freed slave as suggested by her name (it suggests she was born in January) 	<ul style="list-style-type: none"> Wooden and wax tablets detailing the financial transactions of the banker Caecilius Jucundus mention her Operated a business for her former master
Taedia Secunda	<ul style="list-style-type: none"> Canvassed votes for her grandson 	<ul style="list-style-type: none"> Electoral campaign posters or <i>programmata</i> from Pompeii

Women and work

From the evidence of graffiti and inscriptions, we can also gain an insight into the lives of less wealthy women. Women named Valeria Hedone and Asellina were tavern owners; Stasia and Petronia worked in a bakery; Amaryllis and Specula worked in the cloth trade. Other women worked as vegetable sellers, weavers, doctors and moneylenders.

There were also the lower-class poor women and slaves who worked as household servants, cooks, cleaners, **wet nurses** and prostitutes. Funerary monuments testify to the fact that some Pompeian women were important enough to have been honoured by a funeral at public expense. One such woman was the priestess Mamia. Another woman, Veia Barchilla, erected and paid for a large tomb to commemorate the life of her husband.



SOURCE 29 The statue of Eumachia in Pompeii

■ **programmata**
public notices advertising candidates in forthcoming elections

■ **wet nurse**
a woman employed to suckle another woman's child

Slaves

Despite the fact that slaves comprised up to 40 per cent of Pompeii's population, there is little evidence of them in the archaeological record. We do know that some slaves were owned by Pompeii's town council. A few houses had areas that can be identified as specifically for slaves, for example the House of Menander and the House of the Centenary. In other cases they probably shared their owner's living spaces. Very few tomb inscriptions record that the tomb owner was a slave. Probably the majority of slaves were buried in the tombs of their masters or in unmarked graves. One slave named Conviva is known from her tomb inscription that records her death at the age of 20.

1.6 Check your learning

- 1 Find evidence for each of the men listed below and record it in a table using the following headings: Name, Social status, Relevant career details, Evidence. Some men are mentioned in this chapter; others can be found online.

Appius Claudius Pulcher	Marcus Numistrius Fronto
Gaius Calventius Quietus	Marcus Holconius Rufus
Gaius Muniatus Faustus	Marcus Nonius Balbus
Numerius Popidius Ampliatus	Lucius Caecilius Jucundus
Marcus Tullius	
 - 2 Discuss the following in groups and share your answers:
 - a How could freedmen become wealthy and influential?
 - b What privileges did freeborn women have?
 - c Why would Eumachia have dedicated her building in the Forum in her son's name?
 - d Why would Umbricia Januaria have been running a business for her former master, Caecilius Jucundus?
 - e List the different types of evidence that tell us about the lives of women. What are the limitations of such evidence?
 - f Suggest reasons why there is so little evidence for slavery in Pompeii and Herculaneum.
 - 3 Find out more about the building of Eumachia in the Forum. For example, what were its dimensions? What was it used for? Note that its function is contested. What other evidence has been found concerning Eumachia? Read the online article 'Civil Forum of Pompeii. The Eumachia building' by Annamaria De Santis.
 - 4 What do the wall paintings and frescoes reveal about women and their lifestyle in Pompeii and Herculaneum?
 - 5 Read the chapter 'The Women of Pompeii', in E. Fantham et al., *Women in the Classical World: Image and Text*, Oxford University Press, New York, 1994, pp. 330–44.
-

Local political life

■ guilds

associations of craftsmen or merchants

Pompeii, like all Roman colonies, had a constitution. The city of Pompeii was divided into *vici* or wards, which served as voting districts. There were magistrates responsible for the maintenance of public infrastructure. Pompeii was governed by a group of wealthy municipal aristocrats who made up the *ordo decurionum* or town council. As well as the magistrates, trade **guilds**, for example fullers, bankers and religious associations, could exercise some political influence. Source 30 summarises the political institutions at Pompeii.



SOURCE 30 Political life in Pompeii



SOURCE 31 A statue of Marcus Nonius Balbus, donated by the inhabitants, from outside the theatre at Herculaneum

Political life in Herculaneum

The political organisation of Herculaneum was similar to that of Pompeii. It was also run by two annually elected *duumviri*. Its aediles, like those at Pompeii, supervised the markets and public works. One inscription mentions an official called a quaestor, who would have managed the town's finances. Men who rose in prominence during the Augustan period are known for their generosity to Herculaneum. They paid for public buildings and gave dinners for the *decuriones* and the *Augustales*. In return they were elected to public office and had buildings named in their honour. A well-known example is Marcus Nonius Balbus, a Roman Senator who became governor of Crete and Cyrene. As a great benefactor of the town, he was commemorated by several inscriptions and statues at Herculaneum, as well as a building named for him, the Basilica Noniana.

Sources for political life

Most of our knowledge of Pompeii's political organisation is drawn from the epigraphic sources such as *programmata* or election slogans. These *programmata* indicate that the people of Pompeii enthusiastically participated in the elections.

Building inscriptions also provide us with information. Two very generous *duumviri*, Valgus and Porcius, built a small theatre for the use of the Pompeians. It was part of the expectation of people in public office that they build facilities for the people at their own expense. Source 32 provides information about these building inscriptions.

SOURCE 32

INSCRIPTIONS FROM THE POMPEIAN FORUM

- A Marcus Holconius Rufus, *duumvir* with judicial authority for the third time, and Gaius Egnatius Postumus, *duumvir* with judicial authority for the second time, in accordance with a decree of the decurions purchased for 3000 sesterces the right to shut out light and cause to be constructed a wall belonging to the colony of Pompeii to the height of the tiles.
- B Marcus Porcius the son of Marcus, Lucius Sextilius the son of Lucius, Gnaeus Cornelius the son Gnaeus and Aulus Cornelius the son of Aulus, the board of four, by decree of the decurions let the contract.



SOURCE 33 Graffiti, mostly electoral posters from AD 79, on the façade of Asellina's tavern in Pompeii

- C Lucius Sepunius Sandilianus the son of Lucius, and Marcus Herrenius Epidianus the son of Aulus, *duumviri* with judicial authority, caused [this sundial] to be erected at their own expense.

In R. Laurence, *Roman Pompeii: Space and Society*, Routledge, London, 1996, p. 33

Patron–client relationship

One feature of life that was common to all levels of society in Pompeii and Herculaneum was the relationship of client and patron. This was a relationship based on mutual obligation. Elite freeborn families acted as patrons to those in the lower class. It was the responsibility of the client to support his patron at political elections and carry out any services that might be required. In return, the patron might assist his client in legal matters, support his candidacy for political office, influence business transactions in his favour or give him a loan or a free meal.

An example of the patron–client relationship in Pompeii was that between Eumachia and the guild of fullers. The statue of Eumachia in Source 29 was erected in her honour by the fullers' guild.

1.7 Understanding and using the sources

Source 32

- 1 According to inscription A, why was the wall built?
- 2 In inscription B, what do you think is meant by 'let the contract'?
- 3 In inscription C, what have the *duumviri* given permission to be built? Why do they emphasise that it was 'at their own expense'?
- 4 What do these inscriptions reveal about the roles played by *decuriones*?
- 5 What do we learn about the tenure of office (i.e. length of time in office) of the *duumviri* from these inscriptions?

1.7 Check your learning

- 1 Gravediggers, innkeepers, actors, auctioneers and gladiators were ineligible to be *decuriones*. Why do you think this would have been the case?
 - 2 Find examples online of election slogans and propaganda from Pompeii and explain what they reveal about the people of Pompeii. An excellent selection of inscriptions and written sources on Pompeii may also be found in A. Cooley & M. Cooley, *Pompeii and Herculaneum: A Sourcebook*, Routledge, London, 2013.
 - 3 Find out more about patronage in Pompeii. You could read the article 'Whose Forum? Imperial and Elite Patronage in the Forum of Pompeii' by Joseph Frankl (2013).
 - 4 Why would the fullers' guild have dedicated a statue to Eumachia?
-

Everyday life: Housing

The artefacts left behind by the people of Pompeii and Herculaneum give us much information about their everyday lives. Everyday life includes aspects related to provision for basic physical needs such as housing, food, clothing, water and sanitation. Beyond that, there are the many leisure pursuits, including sports and public entertainments.

The houses that have been excavated at Pompeii and Herculaneum are valuable archaeological sources on Roman domestic life, and give us an idea of the development and changes that took place in housing and urban life. Although the houses vary in size and levels of wealth, they generally show a regular plan and systematic use of space. The wealthy inhabitants constructed elaborate, multi-roomed dwellings. The poorer residents, such as the shopkeepers and craftsmen, lived in one-room apartments or in a cramped space at the rear of the business premises, or on the floor above.

In the 2nd and 1st centuries BC, the people of Pompeii used limestone, a dark grey Vesuvius lava stone, yellow and grey tufa, and rubble and brick as the main building materials. A combination of lava blocks and grey tufa laid in a lattice pattern was used after 80 BC. After AD 62, the Pompeians seem to have used whatever building materials were available.

Housing styles

Four main styles of housing have been identified in Pompeii and Herculaneum:

- the *domus* or atrium house (e.g. House of Menander)
- the atrium–peristyle house (e.g. House of the Vettii)
- *insulae* or apartment/lodging houses (e.g. House of the Trellis)
- villas (e.g. Villa of the Mysteries).

The *domus* or atrium house

The most common form of housing in Pompeii was the *domus* or atrium house. It was usually single-storeyed, while the excavations at Herculaneum have uncovered houses of this type that had two storeys. They were generally owned by members of the senatorial and equestrian classes or local aristocracy. Source 34 summarises the main features of a *domus* or atrium house.

The atrium–peristyle house

By the 1st century AD, the peristyle had become the centrepiece of wealthy homes. Alterations to the House of the Vettii at this time meant that a visitor passed straight from the entry and atrium to the peristyle. The peristyle gave access to the dining room and living rooms.

Insulae or apartment/lodging houses

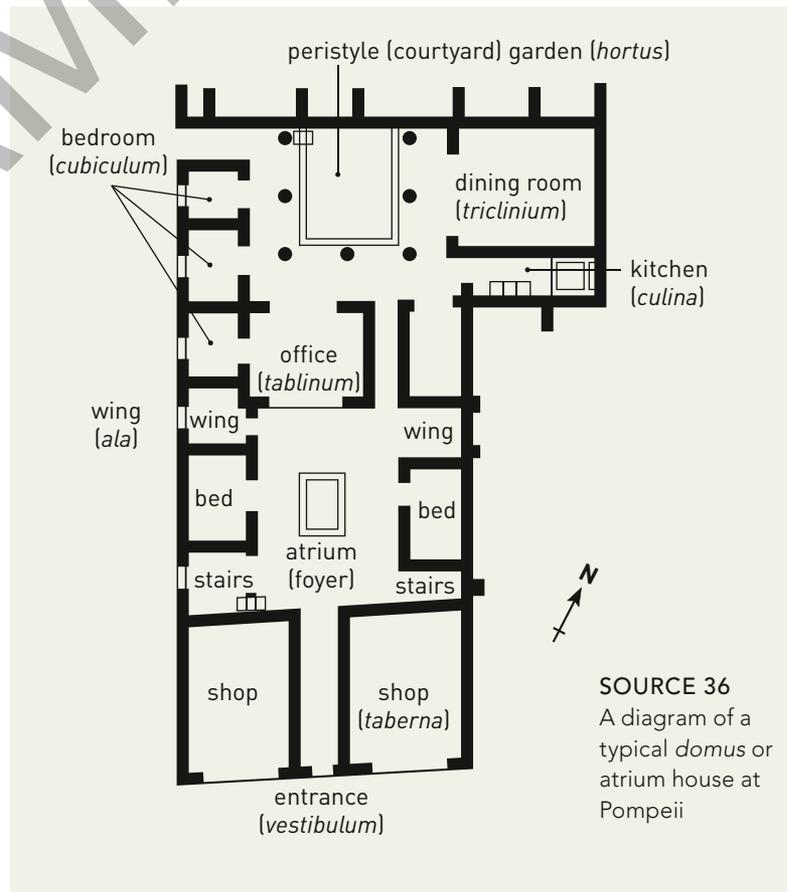
Insulae consisted of multi-storeyed apartments or tenements. Their facilities varied from spacious apartments with a number of rooms to tiny cubicles suitable only for sleeping. More examples of multi-storeyed buildings have been found at Herculaneum than at Pompeii. The House of the Trellis at Herculaneum housed two families, one on each of its two floors. It appears to have been cheaply built of wood and plaster, and had an outside staircase for access to the upper floor.

SOURCE 34 Main features of a *domus* or atrium house

FEATURE	DETAILS
Entrance	<ul style="list-style-type: none"> • Through doorways, often placed between shops • Shops rented out to merchants
Atrium	<ul style="list-style-type: none"> • The religious and social centre of a Roman house • Clients waited here to pay their respects (<i>salutatio</i>) to the master of the house (or patron) • Featured portrait busts of prominent ancestors • The <i>lararium</i> (shrine of the household gods) was located here
Compluvium	<ul style="list-style-type: none"> • A rectangular hole in the roof • Provided lighting for the interior of the house • The inward-sloping roof was designed to catch the maximum amount of rainwater
Impluvium	<ul style="list-style-type: none"> • A large pool sunk into the atrium floor • The water was channelled into a cistern beneath the atrium floor
Triclinium	<ul style="list-style-type: none"> • The dining room • Many houses had two dining rooms: a winter dining room that was inside and a summer dining room that was located in the garden or opened onto the garden
Peristyle	<ul style="list-style-type: none"> • An open courtyard garden generally surrounded by colonnades • Featured ornamental plants and statues, and often fountains, pools, murals and running water
Decorative elements	<ul style="list-style-type: none"> • Floor tiles or mosaics • Murals or painted scenes on walls



SOURCE 35 A house from Pompeii showing the mosaic-tiled entrance, the atrium with the impluvium, and the peristyle beyond



SOURCE 36 A diagram of a typical *domus* or atrium house at Pompeii



SOURCE 37 The peristyle from the House of the Vettii at Pompeii

Villas

Villas were large, luxurious, multi-roomed dwellings located on the outskirts of Pompeii and Herculaneum. Villas were also built on the coast by the wealthy citizens of Rome, who used them as holiday homes. Stabiae, for example, had many seaside villas and was the location of the villa belonging to Pliny the Elder's friend, Pomponianus.

1.8 Understanding and using the sources

Sources 34–37

- 1 What evidence is there of public and private areas in an atrium house?
- 2 Why was the peristyle an important feature of wealthy homes?

1.8 Check your learning

- 1 Research the House of Menander, the House of the Vettii, the House of the Trellis and the Villa of Mysteries. Record the main features of each and what they reveal about housing in Pompeii and Herculaneum.
 - 2 Find out about the roles houses played in the lives of the wealthy men of Pompeii and Herculaneum. Search online for 'patron–client relationship in Pompeii houses'.
 - 3 Research the four styles of Pompeian mural painting described by August Mau. Identify the key features of each style and find examples of each.
-

Villa of the Papyri and the *praedia* of Julia Felix

Two of the better-known dwellings from the cities of Vesuvius are the Villa of the Papyri at Herculaneum and the extensive complex of Julia Felix at Pompeii. Both provide evidence of the lifestyles of the wealthy citizens of these towns.

Villa of the Papyri, Herculaneum

The Villa of the Papyri was first uncovered in 1735 by Karl Weber who drew a detailed floor plan of the building. The villa, built in the 1st century BC, takes its modern name from the ancient library discovered there in 1752. Shelves around the room held approximately 1800 blackened, carbonised, cylindrical papyrus scrolls. The villa followed the usual layout of an atrium–peristyle house, but on a much grander scale. The atrium served as the formal entrance and gave access to other parts of the house. The reception rooms and the living quarters were arranged around the porticoes and terraces. This provided sunshine and light to the interior rooms and sea views.

The magnificence of the villa is reflected in the water features, the pools and the fountains. The *impluvium* in the atrium displays the ornate use of statues and waterworks. In the adjoining peristyle was another pool with 10 columns on either side. Between each column was a shell from which streams of water flowed into the pool.

The main peristyle, a huge area the size of a small town forum, featured another pool. This was a huge fish pond as large as the imperial baths in Rome (6.5 metres long and 7 metres wide). Around this pool in the garden were many beautiful statues. Nearby was a small rotunda that concealed an aqueduct and hydraulic pump, bringing water to all these waterworks.

Another feature of the Villa of the Papyri attesting to the wealth of the owner was the large number of important artworks, busts and statues in marble and bronze, most of which were found in very good condition. Some of the more famous pieces include:

- a copy of the head of Doryphorus the Lance Bearer adapted as a **herm** – the original was by the famous 5th-century Greek sculptor Polyclitus
- a copy of the head of an Amazon, also a herm – the original was by Phidias, the most famous 5th-century Greek sculptor
- a portrait bust in bronze of Scipio Africanus, showing him as bald and with a tattooed scalp
- 'The Resting Hermes', a bronze sculpted perhaps by Lysippos, who worked for Alexander the Great.

In 1970, the American millionaire J. Paul Getty used the Weber architectural floor plan as the model for the J. Paul Getty Museum in

■ **herm**
a rectangular, tapered stone base supporting a carved head or bust



SOURCE 38 A replica of the Villa of the Papyri, including the peristyle garden and statues, at the J. Paul Getty Museum in California



SOURCE 39 The head of an Amazon from the Villa of the Papyri in Herculaneum



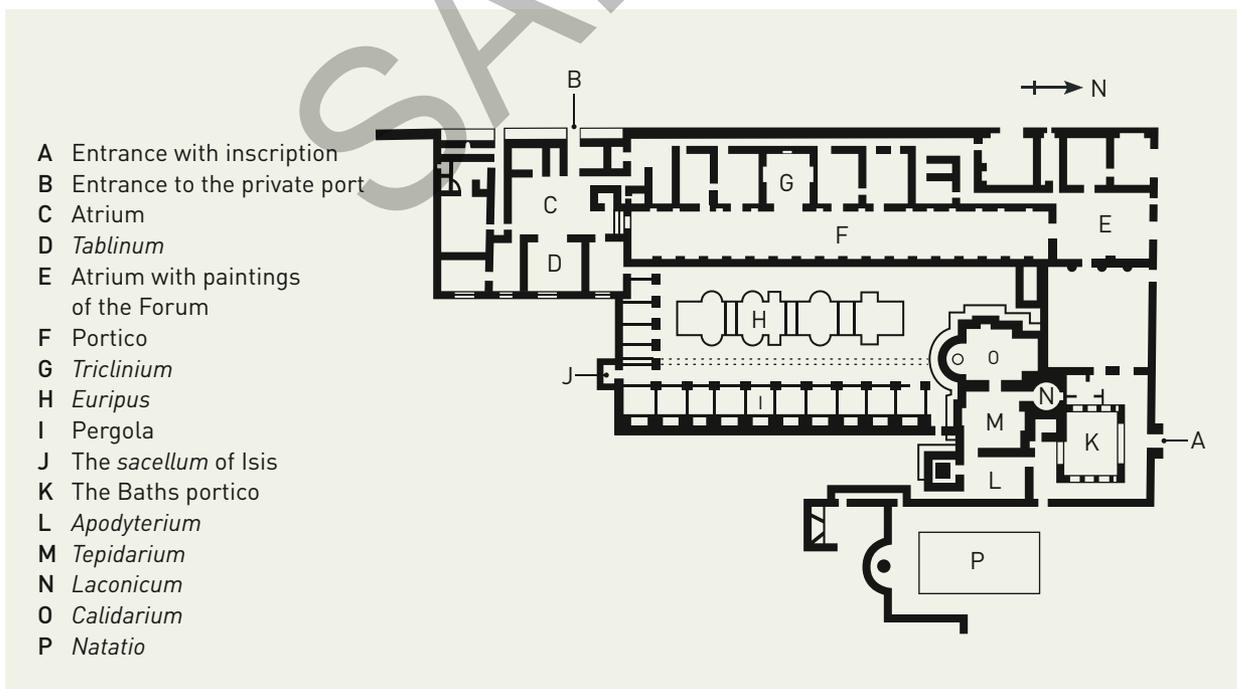
SOURCE 40 Modern excavation taking place at the Villa of the Papyri at Herculaneum

Malibu, California. Completed in 1974, the museum was built to house Getty's collection of Greek and Roman antiquities.

The *praedia* of Julia Felix

The House of Julia Felix is sometimes referred to as the *praedia* or estate of Julia Felix. Julia Felix was a wealthy heiress, daughter of Spurius Felix and owner of a large establishment made of two *insulae* joined together. The property is one of the largest in Pompeii and is famous for its magnificent decoration and attractive orchards and gardens, which occupy most of the space. It is situated on the Via dell'Abbondanza and appears to have been reconstructed after the earthquake of AD 62.

As well as private quarters, the property contained a bathing establishment, shops and apartments, as proved by an inscription found when the house was first excavated advertising these premises. The private bathing facility was elaborate and intended for the elite of Pompeii. It had the usual features, including a cloakroom, a dressing room with a cold tub, a warm bath, a vaulted circular area probably used like a sauna, a hot bath and open-air baths. It also featured a waiting room and a service hatch that enabled the bathers to purchase a snack from the nearby tavern.



SOURCE 41 A diagram of the *praedia* of Julia Felix

Artwork and other decoration

The frescoes painted on walls throughout the house depict scenes of everyday Pompeian life and luxury items enjoyed by the household. These paintings, representing the **Fourth Style** of Pompeian art, are beautifully executed. A well-known painting depicts a young woman with a writing tablet and stylus. These implied her literacy and therefore her high status and perhaps her value as a wife.

Another feature of this house was the large grotto-style dining room with fountains. Its walls were decorated with scenes of the Egyptian Nile and the ceiling was covered with stones to give the appearance of a cave or grotto. The peristyle or garden was lined with statues and marble walkways and contained a series of linked water channels. Some scholars consider that this was intended to represent a branch of the Nile Delta. The garden also contained a small shrine to the Egyptian goddess Isis, and an open-air dining room. Because of the Isis shrine, it is thought that Julia Felix may have been a priestess of the Isis cult.

■ **Fourth Style**
one of the four styles of Pompeian art described by August Mau; characterised by the painting of framed scenes, often featuring human figures and architectural motifs



SOURCE 42 A portrait of a young woman with a writing tablet, from the House of Julia Felix



SOURCE 43 A garden feature at the House of Julia Felix

1.8 Profile tasks

- 1 What are the significant features of the Villa of the Papyri?
- 2 What do its statues reveal about society in Pompeii and Herculaneum?
- 3 Find out more about the famous library of the Villa and the scientific methods used to read the carbonised scrolls. Read the online *Nature* article 'X-rays reveal words in Vesuvius-baked scrolls'.
- 4 Compare the *praedia* of Julia Felix with a typical Pompeian house. What are the similarities and differences? Check the meanings of the Latin terms in Source 41.
- 5 What does the *praedia* tell us about wealthy women in Pompeii and their roles?
- 6 Create a table to record what the *praedia* reveals about life in Pompeii. Use the headings 'Aspect of life' and 'Information revealed'. Cover these topics: Housing, Art, Commerce, Religion, Role of women.

1.9

Everyday life: Food and dining

Evidence of food and drink consumed in Pompeii and Herculaneum is found both within and outside the walls of the cities. Archaeological evidence enables us to identify the foods that were available to the population, who apparently had a varied diet. Seeds and pips from foods such as dates, figs and olives have been preserved in the volcanic ash. Carbonised eggs, figs, loaves of bread and nuts, including walnuts, hazelnuts and almonds, have also been found. Animal bones from sheep, pigs and cattle attest to the consumption of meat. Evidence for the presence of seafood in the population's diet comes from fish bones and the shells of scallops, cockles, sea urchins and cuttlefish.



SOURCE 44 Grape pips, fig pips, fish bones and sea urchin shells found in latrine pits

A team from Oxford University has been investigating remains from latrine pits and sewers at Pompeii. As latrines were usually in the kitchen, they were used to dispose of both human excrement and food scraps. So far, mineralised seeds, small bones and marine shell fragments have been found. Oxford University has also been working at Herculaneum on the city's sewers as part of the Herculaneum Conservation Project. In 2011, archaeologists reported that they had retrieved 750 large bags of human excrement from one previously unexcavated sewer. As well as many artefacts that had obviously been lost in the sewer, examination revealed grape pips, fig pips, fish bones and sea urchin shells.

A team from the University of Cincinnati examined an area of 20 shops that served food and drink at the Porta Stabia, a busy gate on the southern side of Pompeii. In 2014, these archaeologists reported evidence of not only the expected foodstuffs such as grains, fruits, nuts, olives, lentils, fish and (chicken) eggs, but also dietary items that were more exotic.

SOURCE 45

The Cincinnati team found, in the remnants even of businesses that would have served the lower classes, evidence of salted fish that would have come from Spain. Via a drain from a property in the center of the plot, they also discovered evidence of shellfish not native to Italy. They found mineralized remnants, as well, of sea urchin. And also! The butchered leg joint of a giraffe.

'That the bone represents the height of exotic food,' [said] Steven Ellis, an associate professor of classics who led the research, ... 'is underscored by the fact that this is thought to be the only giraffe bone ever recorded from an archaeological excavation in Roman Italy.'

M. Garber, 'How did people in ancient Pompeii end up eating giraffes?', *The Atlantic*, 3 January 2014

Professor Wilhelmina Jashemski, an archaeologist specialising in the gardens of Pompeii, discovered that many houses had spaces for the cultivation of figs, olives, cherries and other fruits and vegetables. Evidence for viticulture (grape growing) within Pompeii and hence for the drinking of wine came from her discovery of a vineyard within the walls. Artworks including frescoes and mosaics that feature foods such as fruit, fish, poultry and game also provide information about diet at Pompeii and Herculaneum.

Garum

The Romans loved spicy, strong flavourings in their food. A favourite was a thick, salty fish sauce called *garum*. This was made of a fermented mixture of small fish such as sprats and anchovies combined with the entrails of larger fish such as mackerel. A lighter, strained version of this sauce was called *liquamen*. Pompeii was famous for its *garum* and the name of a prominent manufacturer is known, one Aulus Umbricius Scaurus. A large number of labels found on *garum* containers in Pompeii and throughout Campania record his name. Excavation at Pompeii has uncovered stalls that sold takeaway foods doused in this fish sauce.



SOURCE 46 A well-preserved *thermopolium* from Herculaneum

Dining in Pompeii and Herculaneum

Wall paintings suggest that banquets were popular in Pompeii and Herculaneum. These depict people eating and drinking, being helped by slaves to remove outer clothing and even vomiting. The houses of the wealthy had a specific dining room called a *triclinium*, where these parties probably took place. An outdoor *triclinium* was found in the House of the Moralist at Pompeii, which featured three stone couches that were painted red and a marble-topped table. A bronze brazier and various serving and eating vessels were found nearby. In ordinary homes, meals could have been taken in a variety of locations, both inside and outside.

The inhabitants of Pompeii and Herculaneum also ate 'fast food'. Australian archaeologist Dr Penelope Allison, who excavated the *insula* of the Menander at Pompeii, thinks that their busy lives probably left little time for long meals at the dinner table. She thinks that the large numbers of small barbeques for grilling found in the houses she studied means that people were eating 'on the go'. Ready-cooked food was also available at the many *thermopolia* or food stalls found in both Pompeii and Herculaneum.

1.9 Understanding and using the sources

Source 45

- 1 List the imported foods found by the Cincinnati team.
- 2 Why was the discovery of the giraffe bone significant?

1.9 Check your learning

- 1 Find out more about the University of Cincinnati's work at Porta Stabia. Read the online article 'No scrounging for scraps: UC research uncovers the diets of the middle and lower class in Pompeii'.
- 2 Investigate the work of Wilhelmina Jashemski at Pompeii. Search online for 'Evidence of food plants of Ancient Pompeii' and 'Archaeological evidence for plants in ancient Vesuvian gardens'.
- 3 Research the recent archaeological discoveries made at the Villa Murecine. What do they reveal about food and dining in Pompeii?
- 4 Research the Pompeii Food and Drink Project. What further information can you find about food and drink in Pompeii?
- 5 Writing task: Explain what sources reveal about food and dining in Pompeii and Herculaneum.

To help you plan your response:

- identify the main features of food and dining that you wish to write about
 - keep your introduction to one sentence that addresses the question and previews the features you have identified
 - make observations about features of food and dining and illustrate them with specific information from the sources
 - explain the relationship between the sources and conclusions you draw – be careful to avoid a source-by-source description.
-

Everyday life: Clothing, health and water supply

Further aspects of everyday life in Pompeii and Herculaneum concerned clothing, health, baths, water supply and sanitation.

Clothing

Most evidence for clothing in Pompeii and Herculaneum comes from artistic representations; there is very little evidence in the archaeological record. Although statues of highly ranked men, such as Marcus Nonius Balbus from Herculaneum, show them wearing the toga, the national garment of Rome, it is unlikely that they were worn all the time. The toga was a very heavy woollen garment that was difficult to put on without assistance and greatly restricted the wearer's mobility. It was a garment for formal occasions, as seen in a fresco from a building outside of Pompeii where men are shown engaged in a religious



SOURCE 47 'Primavera', or 'Spring', a fresco in the Third Pompeian style from the Villa Arianna in Stabiae

procession. Men of rank as well as those of the equestrian class more commonly wore a knee-length, belted tunic. The width of the purple stripes on the front and back indicated the rank of the wearer. Working men and slaves wore a similar tunic, which was usually made of coarser, darker wool. These would be pulled higher over their belts to shorten them for ease of movement.

Women of rank are depicted wearing a *stola*, a long, sleeveless tunic, usually suspended at the shoulders from short straps. This was worn on top of another tunic. The wearing of this garment, which was a symbol of marriage, enabled a woman to publicly proclaim her modesty and respect for tradition. This was accentuated by the cloak or *palla*, which she wore over her head when outdoors.

Health

The main evidence for the health of the residents of Pompeii and Herculaneum comes from the remains of the people themselves. Dr Estelle Lazer, an archaeologist and physical anthropologist from Sydney University, has studied the pathology of human remains at Pompeii. Her examination of human remains, including about

300 skulls, indicates that the people were generally well nourished. The average height was 167 centimetres for men and 155 centimetres for women. The wear and decay of their teeth was probably caused by particles of the basalt grindstones used in making flour. Dr Lazer also found evidence for an age-related condition called hyperostosis frontalis interna (HFI), a thickening of the frontal bone of the skull, usually associated with post-menopausal women. Its symptoms include obesity, diabetes and headaches, which might have affected about 12 per cent of the female population – a normal distribution in most populations.

Other studies on the human remains from Pompeii reveal that tuberculosis and malaria were common diseases. Death rates from these diseases were higher in wealthy areas of town, where water features in gardens provided breeding grounds for mosquitoes. Investigations of the remains of a group of people who tried to escape the eruption show that one in five were infected with brucellosis or Malta fever, a disease caused by eating contaminated milk products.

Surgical instruments have been found in several locations in Pompeii. Despite their presence, remains have been found where fractures have healed without the bones being reset. In Source 48, Dr Penelope Allison expresses her opinion on the likely source of most medical intervention in Pompeii.

SOURCE 48

'We believe that whenever we find medical instruments, they belonged to doctors. But I think that a lot more high-level first aid went on within households,' Allison said. 'We have found surgical instruments in domestic contexts, and I think someone in the house was responsible for sewing up injured people.'

P. Allison, cited in H. Whipps, 'Secrets of ancient Pompeii households revealed in ruins', *Live Science*, 31 May 2007

1.10 Understanding and using the sources

Source 48

- 1 Who might have been responsible for first aid in a Pompeian household? Why?

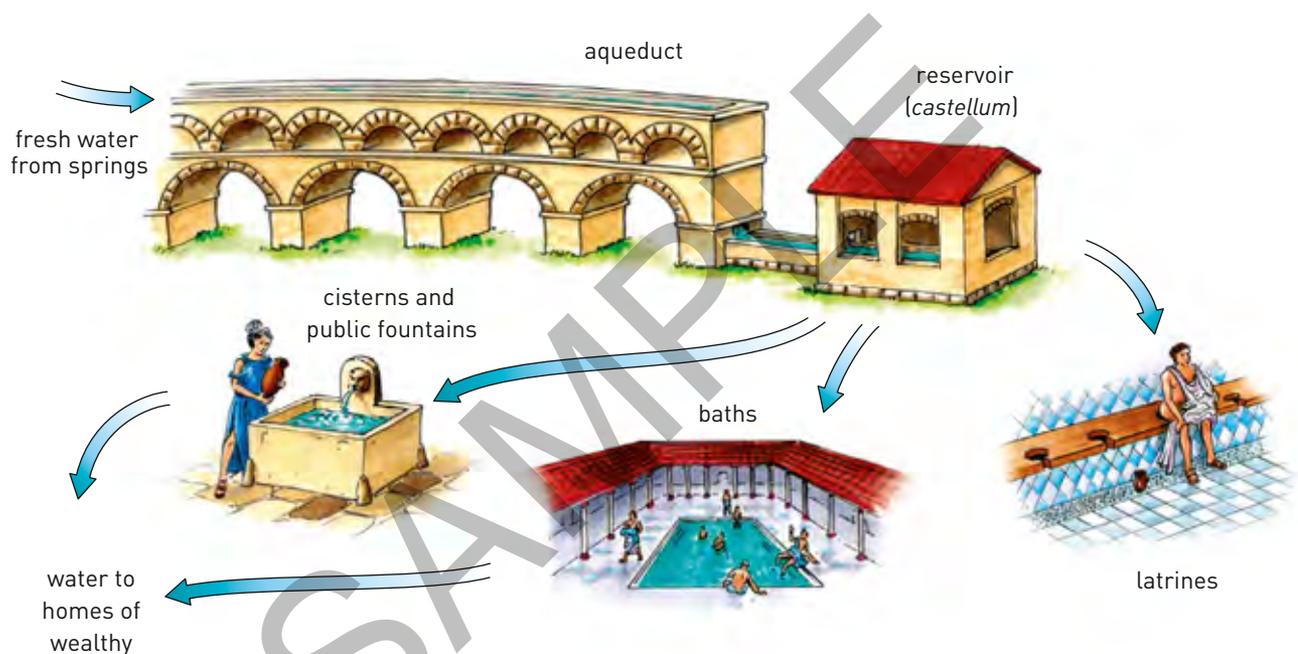
1.10a Check your learning

- 1 Find pictures of statues and frescoes from Pompeii and Herculaneum. See if you can identify the garments the people are wearing.
 - 2 Is it possible to distinguish social classes from the garments depicted?
 - 3 How reliable are statues and frescoes as evidence of everyday clothing as worn in Pompeii and Herculaneum?
 - 4 Research the House of the Surgeons and the medical instruments that have been found there. What do they reveal of medical practices?
 - 5 Find out more about the villa that has been excavated at Boscoreale, as well as the Villa Regina, Villa of Publius Fannius Synistor, Villa della Pisanella and Villa del fondo Ippolito Zurlo. What information do they provide about everyday life?
-

Water supply

One of the major prerequisites for any city is a regular water supply. The early inhabitants of Pompeii relied on water from the Sarno River, deep wells and rain-collecting cisterns for their water supply.

At the time of Augustus, the imperial aqueduct at Misenum had a branch built to supply Pompeii (Serinum aqueduct). Water from this channel flowed into a main tank or water tower (*castellum aquae*) near the Vesuvian Gate. From the *castellum*, it was siphoned off into three main pipes that fed different areas of the city. The sloping terrain aided the water pressure that dispersed the water to various tanks all over Pompeii. Fourteen of these secondary tanks have been uncovered. Many private homes in Pompeii were connected directly to this source of fresh, running water.



SOURCE 49 A diagram of the water supply at Pompeii

One of the three pipes supplied the 42 public fountains (*nymphaea*), found all over Pompeii. We have evidence of three fountains at Herculaneum. They were usually located at crossroads; obviously the supply of water was more important than traffic movement because in some places the fountains obstructed the roadway. It is likely that most people in Pompeii lived within easy walking distance of a fountain. These public fountains provided a continuous supply of fresh water as there was an overflow system. The excess water ran down the streets and helped wash away the rubbish. The fountains were quadrangular stone basins often decorated with **gargoyles**. Water flowed through lead pipes, but the Pompeians were unaware of the health hazard. Another feature was the use of a technology called *castellum plumbeum*, a complex water pressure system that functioned with the water towers to regulate water pressure throughout the town.

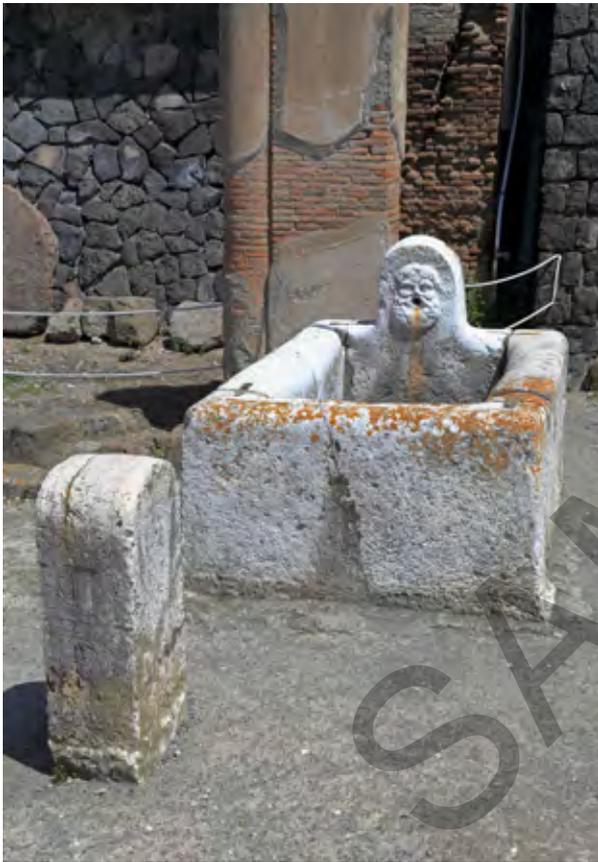
■ **gargoyle**
a carving of an ugly human or animal head or figure projecting from the gutter of a building, acting as a spout

Baths and bathing

hypocaust

an ancient Roman heating system whereby air heated by furnaces was directed into hollow spaces beneath the floors of buildings

Although the Romans are credited with being the first to build bathing complexes, their origins lie in Greek culture and in that of the Samnites of Campania. In fact, Pompeii already had two public baths before the first one was built in Rome. For the Romans, bathing was also a social and leisure activity, not just a matter of hygiene. Many houses, even those belonging to the wealthier citizens, did not have bathrooms – instead people frequented the public bathing complexes. In every colony or military settlement, one of the first buildings to be constructed was the public baths and this building was always a communal centre, just as important as the Forum.



SOURCE 50 A nymphaeum at Herculaneum

stucco bas relief

a render applied wet to a sculpture in low relief, in which the forms project slightly from the background

Triton

a Greek god, messenger of the sea, son of Neptune and Amphitrite

Baths at Herculaneum

Herculaneum had two bathing complexes: the Forum Baths and the Suburban Baths. The Forum Baths were built between 30 and 10 BC and follow the standard Roman design of baths. The floor of the *tepidarium* (warm bath) features a mosaic in the design of a huge **Triton** with serpents entwined around his legs, surrounded by frolicking dolphins.

The Suburban Baths were located outside the town walls, near the sea. The baths themselves are in a very good state of preservation, but have been difficult to excavate due to the dense volcanic rock and the lowered water table. Damage has been done to the site not only by the eruption, but also by tunnellers in the early days of excavation.

Baths at Pompeii

Pompeii had four main public baths. They were the Forum Baths, the Stabian Baths, the Central Baths and the Amphitheatre Baths. The Stabian Baths were the oldest and largest baths in Pompeii and date from as early as the 4th century BC. They had the earliest known **hypocaust**, which was installed in the 1st century BC. Floors and rooms were heated by hot air circulated via pipes and flues located beneath. Vents allowed smoke and soot to escape. Special clogs were worn by the bathers to protect their feet from the heat of the floors.

In the 1st century BC, the *duumviri* G. Iulius and P. Annius, according to an inscription, reconstructed the *palaestra* and the porticoes, and added a *laconicum* or sauna and a *dstrictarium* or scraping room. In the Augustan period a new wing was added, the *palaestra* extended and a swimming pool added. At this time the baths were decorated with fine Fourth-Style frescoes, multicoloured **stucco bas reliefs**, mosaic floors and marble fittings. The earthquake of AD 62 severely damaged these baths and some areas were not in use at the time of the eruption. Excavations of the Stabian Baths, begun in the 1850s, revealed that looters had raided these baths in the years following the AD 79 eruption.



SOURCE 51 The *caldarium*, or hot bathing room, of the Forum Baths at Pompeii



SOURCE 52 The floor mosaic of the *tepidarium* in the Forum Baths at Herculaneum

Sanitation

Pompeii was noisy, dirty, smelly and generally unhygienic, with rubbish in the streets. Like most Roman towns, it had public latrines. To dispose of the waste matter from these, the Romans devised a system that involved water running continuously through a drainage channel that moved the waste matter along. A large public latrine with seating for 20 people has been found in the north-west corner of the Forum at Pompeii. There was a small anteroom and then the main toilet area containing seats. Roman toilets were communal with no private cubicles. People sat side by side on benches above the flowing channel. There was no toilet paper, only a sponge on a stick. Public latrines were also located at the baths and the *palaestra*.

Some private homes in Pompeii and Herculaneum, such as the House of the Painted Capitals, had latrines. These were often located near the kitchen area and were flushed by hand or connected to the house's water supply from the aqueduct. The waste matter drained away to cesspits beneath the roadway or to the sewerage system. Private toilets were usually only for one or two people; however, some houses in Herculaneum catered for up to six users.

1.10b Check your learning

- 1** Find out some details of the function of each of the four main public baths mentioned and the activities conducted there. Were the facilities the same or different for men and women?
- 2** Find some pictures of Roman latrines. The public ones at Pompeii are not in very good condition, but those at Ephesus and Ostia are very well preserved. You should also be able to find some pictures of Pompeian latrines that were adjacent to kitchens.
- 3** Writing tasks: Choose one or more of the following and write responses.
 - a** Describe the clothing worn by the people of Pompeii and Herculaneum.
 - b** Describe the health of the population of Pompeii and Herculaneum.
 - c** What do the baths in Pompeii and Herculaneum reveal about everyday life?
 - d** What evidence do we have for water supply and sanitation in Pompeii and Herculaneum?

Leisure activities

Various leisure activities were enjoyed by all ranks of society in Pompeii and Herculaneum. People could go to the theatre, attend gladiatorial games and beast fights in the amphitheatre, work out in the *palaestra* or gym, go to the baths and, of course, spend time in the many bars and taverns.

Theatres

Pompeii had two theatres: the Large Theatre and the smaller Odeion. The Large Theatre was constructed on the Greek model with semicircular, tiered seating that had a capacity of up to 5000. The building dates to the 2nd century BC, with additions made during the reign of Augustus by Marcus Holconius Rufus, a local official. The **proscenium** and stage building were begun after the AD 62 earthquake. The lower tiers were clad in marble and reserved for the elite members of society.

The Odeion was a covered structure of smaller capacity. As with the Large Theatre, the seating was arranged and decorated according to social status. Because it was roofed, the acoustics were good and well suited for the poetry readings and concerts that were held there.

The theatre at Herculaneum was a freestanding structure of 19 rows of tiered seating with a seating capacity of about 2000. The well-known local identity Marcus Nonius Balbus is commemorated in inscriptions and statues along with statues of gods and imperial and local figures.

proscenium
the stage area of
an ancient Greek or
Roman theatre

Several different types of entertainment, including plays, farces and pantomimes, were held at the theatres at Pompeii and Herculaneum. Pantomimes – stories told with mime and music – were a popular attraction. The Games of Apollo at Pompeii included pantomimes, which were held at either the Forum or the Large Theatre. Greek drama, including comedies and tragedies, was also popular. Inscriptions from Pompeii and Herculaneum refer to groups of players touring around the Campanian region.

The *palaestra*

The men from Pompeii and Herculaneum spent some of their leisure time at the *palaestra*. The *palaestra* at Pompeii was an exercise ground for the military and for youth organisations promoted by the emperor. It was a spacious, open-air arena measuring 141 metres by 107 metres, bounded on three sides by graceful colonnades and shaded by plane trees. In the centre was a rectangular swimming pool fed with fresh water from the nearby aqueduct.



SOURCE 53 A mosaic from Pompeii depicting an actor wearing a comic mask

At Herculaneum, the *palaestra* was slightly smaller than the one at Pompeii, covering a total area of 120 metres by 80 metres. It was also surrounded by colonnades on three sides, the fourth being a covered walkway. In the centre was an ornamental, cross-shaped pool featuring a fountain in the shape of a serpent with five heads. A swimming pool was located in front of the covered walkway. Umbrella pines provided shade on hot summer days.

Gladiatorial games

Gladiatorial games were one of the most popular forms of entertainment in Pompeii. They featured combats between pairs of gladiators and between men and animals. Gladiators were usually slaves or convicted criminals. In Pompeii they trained at the *palaestra* next to the amphitheatre and in the gladiators' barracks, which were located some distance from the amphitheatre in the portico of the Large Theatre. Archaeologists found 18 human skeletons here as well as that of a horse.

Another major find was the gladiatorial equipment found in 1766–67 in the gladiators' barracks. There were 15 complete helmets, six single **greaves**, five pairs of greaves, three shoulder guards and a small round shield. Many of these items are lavishly embossed and it is thought that they were used in ceremonial parades rather than as fighting equipment.

Gladiators, like modern sports stars, were extremely popular in Pompeii, particularly with women. For example, the Thracian Celadus is referred to as the 'heart-throb of the girls'. Some of the inscriptions tell us the results of the games: 'Auctus of the Julian school has won 50 times' and 'Nobilior was victorious 11 times and Bebrix 15 times'.

■ **greave**
armour worn to
protect the lower leg

The amphitheatre

The amphitheatre (or *spectacula*) in Pompeii, found in the south-east area of the town, is the oldest surviving amphitheatre in the Roman world. It measures 135 by 104 metres and had 35 rows of seating with a total capacity of about 24 000 spectators. Seats were numbered and the local dignitaries sat in the front rows.

SOURCE 54 The
amphitheatre at
Pompeii



An unusual feature was the entrance staircases situated on the outside of the building. There were probably canopies to shade the spectators, as the remains of stone rings used for the poles have been found along the top of the building. The amphitheatre was made from local stone and featured a parapet that separated the seats from the main arena. This was decorated with frescoes of gladiatorial combat, which unfortunately have been lost. The amphitheatre was restored after the earthquake of AD 62.

The following sources provide information on the events held in the amphitheatre. These often lasted a week and were paid for by the elected magistrates.

SOURCE 55

Aulus Clodius Flaccus [*duumvir*] ... In return for his second *duumvirate* ... at the games of Apollo [he presented] in the Forum a procession, bulls, bull fighters and their fleet footed helpers, and boxers fighting in bands; on the next day in the Amphitheatre [he presented] by himself 30 pairs of athletes and five pairs of gladiators, and with his colleague [he presented] 35 pairs of gladiators and a hunt with bulls, bullfighters, boars, bears and other hunt variations.

A. Cooley & M. Cooley, *Pompeii: A Sourcebook*, Routledge, London, 2004, p. 48

SOURCE 56

There will be a hunt, athletes, sprinklings, awnings. Good fortune to Maius, leader of the colony.

Cooley & Cooley, 2004, p. 54

Other leisure activities

Remains at Pompeii and Herculaneum reveal some of the other pastimes of the inhabitants. A popular pastime for men was cockfighting. This involved rival roosters pitted against each other in a fight to the death. A mosaic depicting such a fight has been found, which shows two roosters attacking each other in front of a table that bears the purse waiting to be awarded to the winning owner.

A scene depicting women (or goddesses) playing with *tali* or knucklebones has been found at Herculaneum. It is a sketch in red lead on marble and is signed by Alexander the Athenian. The game was played with pieces of bone from goats or sheep, or made from bronze or terracotta. It resembles the modern game of jacks, but could also be a dice-like game with the numbers on the different sides of the knucklebones.

1.11 Understanding and using the sources

Sources 55 & 56

- 1 Who built the amphitheatre and why?
 - 2 What does this tell us about the role of the *duumviri*?
 - 3 What do the seating arrangements at the amphitheatre reveal about the social structure of Pompeii?
 - 4 Why would the advertisement (Source 56) from the Forum Baths mention 'sprinklings' and 'awnings' as a feature of the games?
-



SOURCE 57 The cockfight mosaic from Pompeii

1.11 Check your learning

- 1 Investigate the Pompeii amphitheatre using Google Earth. Note what is left of the features mentioned in the sources. Also look at the adjacent *palaestra* and the remains of the gladiators' barracks next to the Large Theatre.
- 2 Find out about the riot that occurred in the amphitheatre in AD 59. What was the result and how do we know about it? You can start with Tacitus, *Annals*, 14.17.
- 3 View the BBC documentary *Pompeii: Life and Death in a Roman Town* by Mary Beard.
- 4 Writing task: Explain what the sources reveal about leisure activities in Pompeii and Herculaneum.

To help you plan your response:

- identify the main leisure activities of the people of Pompeii and Herculaneum
 - use them to structure your response
 - use specific sources to illustrate your explanation
 - explain the relationship between the sources and the conclusions you draw – be careful to avoid a source-by-source description.
-

Religion

The people of Pompeii and Herculaneum followed Roman religious beliefs and practices. There were, however, some local differences. Pompeii had particular gods that were favoured, such as Venus, the patron goddess. Wall paintings and statues of her are numerous in Pompeii. Hercules, the mythical founder of Herculaneum, is depicted in statuettes and wall paintings in *lararium* shrines like the one from the House of the Silver Wedding. Sources – including temples, statues, wall paintings and inscriptions – can be found for Apollo, Diana, Bacchus, Jupiter and Juno, Mars, Mercury, Minerva and Neptune.

Worship took the form of offerings, sacrifices, festivals, games and rituals. Divination, telling the will of the gods from signs and omens, was a major part of religion at Pompeii. This included reading the entrails of sacrificed animals. Evidence of sacrifice from the temple of Vespasian in the Forum shows a priest, his head covered by a toga, pouring a libation or liquid offering to the god. The sacrificial bull is led to an altar, accompanied by flute players and two young men carrying the implements for the sacrifice.

Household gods

The domestic hearth or fireplace was the centre of the household and it was here that the *paterfamilias*, the head of the Roman family, celebrated the religious practices connected with the family and the household. Vesta, goddess of the hearth, was worshipped along with:

- the *lares* – household deities who protected the family. They were headed by the family spirit or *lar familiaris*. *Lares* had their own shrine in a cupboard. Any food dropped at a meal was offered to them.
- the *genius* – the god of the male line of descent. The god was worshipped on the birthday of the *paterfamilias*. Sometimes the genius was represented as a snake.
- the *penates* – the gods of the larder or food store. Their statuettes were placed on the table at mealtimes.

Every home also had its own shrine or *lararium*, usually located in the atrium where the whole family carried out daily worship. Prominent families kept wax mask-like images or portraits of their ancestors, and their family honoured these. Source 58 provides details of worship of the household gods at Pompeii.

SOURCE 58

Small pits containing high concentrations of cremated bones and carbonised plant remains were found in the gardens of VI 16, 27 and V 1, 18 and also the two peristyle gardens of I 9, 11–12 (House of Amarantus). The bones include parts of piglets and the heads and feet of cocks. The carbonised remains include stone-pine cones, figs, dates, grapes and hazel nuts. Other items include a piece of poppy-seed bread or pastry. These remains have been interpreted as offerings to the *Lares* (household gods). Several classical authors refer to such offerings and they are depicted on wall paintings at *lararia* in Pompeii but these are the first occasions such remains have been found in the ground.

University of Oxford, School of Archaeology, Research, 'Pompeii: The environmental archaeology of Pompeii and Herculaneum', 2018



SOURCE 59 A *lararium* or household shrine fresco in the atrium of a tavern on the Via dell'Abbondanza, Pompeii

Temples

There were numerous temples and sanctuaries at Pompeii, but the temples at Herculaneum are yet to be excavated. Temples were regarded as the homes for gods and goddesses, and featured a *cella* (chamber) to contain the statue of the deity, which stood before an altar. Most temples were dedicated to public cults, including the cult of the emperor, enabling the people to demonstrate their loyalty to Rome. The temples, then, served an important political function.

Imperial cult

From the time of Augustus onwards, the imperial cult became especially prominent in provincial cities and towns such as Pompeii and Herculaneum. It gave citizens opportunities to publicise their loyalty to the emperor as well as to move upwards socially. For example, in Pompeii and Herculaneum, membership of the *Augustales*, or priests of the imperial cult, became a way for wealthy freedmen to advance when other public office was denied them.

Two temples at Pompeii are specifically related to the imperial cult:

- the Temple of Fortuna Augusta, built opposite the Forum Baths by the *duumvir* Marcus Tullius – it was dedicated to the worship of the emperor and Fortuna Augusta, the goddess of abundance.

SOURCE 60 The main temples in Pompeii

TEMPLE	DETAILS
Temple of Jupiter (Capitolium)	<ul style="list-style-type: none"> • Located in the Forum • Dedicated to Jupiter, Juno and Minerva, the Capitoline Triad • As the centre for state religion, the temple had a large number of priests
Temple of Vespasian	<ul style="list-style-type: none"> • Located on the east side of the Forum • The centre of the imperial cult at Pompeii
Temple of the Public Lares	<ul style="list-style-type: none"> • Located on the east side of the Forum • The town <i>lares</i> were worshipped and important statues were displayed
Temple of Venus	<ul style="list-style-type: none"> • Located near the Marine Gate • A marble temple dedicated to Venus Pompeiana, the patron goddess of Pompeii. At its establishment as a colony, Pompeii had been named <i>Colonia Veneria</i> in her honour • The upkeep of this temple was paid for out of the public purse
Temple of Fortuna Augusta	<ul style="list-style-type: none"> • Located near the Forum • Dedicated to the worship of the emperor and the goddess of abundance, Fortuna
Temple of Apollo	<ul style="list-style-type: none"> • Located beside the Forum • Associated with Venus as the patron deity of the city
Temple of Jupiter Melichios	<ul style="list-style-type: none"> • There is ongoing debate whether this temple is the Roman version of the Greek Zeus Melichios, a god of farmers and agriculture
Temple of Isis	<ul style="list-style-type: none"> • Located in the theatre and gymnasium district of Pompeii • Reflects a mixture of Egyptian, Greek and Roman architectural features (e.g. Greek Corinthian columns) • Contained a platform for the statues of Isis and Osiris, as well as wall paintings and murals of Egyptian landscapes



SOURCE 61 The Temple of Augustus at Herculaneum

- the Temple of Vespasian, built in the Forum – despite its name, this temple is now thought to date from the reign of Augustus, earlier in the 1st century AD. An inscription suggests that it was paid for by the public priestess, Mamia.

At Herculaneum, a building has been identified as the Hall of the *Augustales*.

1.12 Understanding and using the sources

Source 58

- 1 List the items found in the gardens.
- 2 What do they reveal about the types of offerings made to the *lares*?

1.12 Check your learning

- 1 Discuss the following in groups and share your responses:
 - a What were the main features of temples and religious ritual in Pompeii?
 - b What is known about household cults and their significance?
 - c Why were the *Augustales* significant?
 - 2 Research the Roman gods worshipped by the people of Pompeii and Herculaneum, then complete a table to record the information using the following headings: God/Goddess, Symbol, Responsibility, Evidence in Pompeii/Herculaneum.
-

1.13

Foreign cults and religions

Excavations at Pompeii and Herculaneum have revealed a society that was tolerant of the worship of foreign gods and the practices of imported cults. These tended to have a more personal focus with the promise of an afterlife.



SOURCE 62 The Temple of Isis showing the remains of its Corinthian columns and the stairway access from the front

uraeus

a protective device on the front of a pharaoh's headdress in the form of a cobra

Foreign cults

Cult of Isis

The cult of Isis appeared in Pompeii about 100 BC and was popular with women, freed slaves and, later, with the upper classes. Isis was a mother goddess who promoted fertility, healed the sick and offered her followers immortality. The cult had its own full-time priests operating from the Temple of Isis. Two daily ceremonies were conducted by the temple priests, who wore white linen robes and a headband decorated with the Egyptian symbol of the **uraeus** or cobra. The first ceremony was held before sunrise and commemorated the re-birth of Osiris, the husband of Isis. The second ceremony was

held in the afternoon to give thanks to Isis with the blessing of the sacred Nile water. These ceremonies were popular because they were accompanied by chanting, burning of incense and playing of music – cymbals and the rattle or sistrum. A wall painting showing the priests of Isis performing a religious ceremony was found at Herculaneum.

Cult of Sabazius

This cult centred on the Thracian fertility god Sabazius, who was equated with the Graeco–Roman god Dionysus/Bacchus. In 1954, a shrine to this god was unearthed, consisting of a simple stone altar with two terracotta vases that probably contained offerings. In storerooms nearby were found bronze lamps and statues of hands with the god Sabazius shown in the palm and other symbols such as a serpent on the fingers of the hands. Historians have pieced together the rituals of the cult from the writings of Clement of Alexandria (2nd century AD) who was known to worship this god.



SOURCE 63 An illustration of the Hand of Sabazius, a sacred symbol of the god Sabazius, which was found at Pompeii

Cult of Lakshmi

In 1938 at the House of the Four Styles in Pompeii, archaeologist Amedeo Maiuri (see Source 15) unearthed an ivory statuette of the Hindu goddess Lakshmi, goddess of beauty, fertility and wealth. Her worship could have come to Pompeii through trade links.

Foreign religions

Archaeologists have found evidence that may indicate the presence of early Judaism and Christianity in Pompeii and Herculaneum. Some evidence suggests that Jews lived in Pompeii. The biblical names Mary and Martha have been found on walls, and inscriptions on some amphorae suggest the presence of Jews.

Evidence for Christians is restricted to a faded inscription bearing the word 'Christian' and an impression of a cross on a wall in Herculaneum. This has been interpreted as evidence for either a Christian shrine or maybe just a cross-shaped bracket supporting a cupboard.

Tombs

Our main sources of information about death and burial at Pompeii are the tombs and their inscriptions in the necropoleis or cemeteries located outside the city gates. Burial inside the gates was forbidden. Unfortunately, the tombs of Herculaneum's residents have not yet been excavated.

Most of the funerary monuments in Pompeii are found on the Street of the Tombs leading from the Herculaneum Gate and the Nucernian Way and near other gateways. The tombs are of various types, indicating that the rich and poor were interred close together. The rich had imposing sepulchral monuments demonstrating their important place in the public life of Pompeii. For example, the tomb of Umbrius Scaurus shows scenes from gladiatorial games given in his honour. The tomb of Faustus and his wife, Nevoleia Tyche, was decorated with a scene of a funeral ceremony and a ship lowering its sails. These tombs were decorated in a variety of styles showing Greek–Hellenistic and Roman–Italic influences.

Inscriptions on the monuments give us the name and rank of the person and provide us with vital information about their lives, public works and activities. See Source 65 for a selection of tomb inscriptions. It should be remembered, though, that the inscriptions are evidence of how the tomb owners wanted to be remembered, not necessarily of what they were really like. Another problem with evidence from tombs is that very few children or slaves are represented, while there is much representation of freedmen and women.



SOURCE 64 The Street of the Tombs, the main street of the necropolis at the Herculaneum Gate of Pompeii

SOURCE 65

- 1 To Septumia, daughter of Lucius. Granted by decree of the town councillors a burial place and 2000 sesterces for the funeral. Antistia Prima, daughter of Publius, her daughter, built (this monument).
- 2 To Marcus Obellius Firmus, son of Marcus, *aedile, duumvir* with judicial power. The town councillors decreed him a burial place and 5000 sesterces for his funeral; the inhabitants of the country district decreed him 30 pounds of frankincense, and a shield, and their attendants 1000 sesterces for perfumes and a shield.
- 3 To Gnaius Alleius Eros, freedman of Maius, appointed as *Augustalis*, free of charge, to whom the *Augustales* and inhabitants of the country district decreed 1000 sesterces for his funeral rites. Lived 22 years.
- 4 Helle, slave girl, lived 4 years.
- 5 Lucius Manlius Saturninus, son of Quartus, of the Romilian tribe, Ateste his hometown, bodyguard, performed military service for 5 years, lived for 24 years. His brother set this up.

A. Cooley & M. Cooley, *Pompeii: A Sourcebook*, Routledge, London, 2004, pp. 140, 141, 143, 153, 156

1.13 Understanding and using the sources

Source 65

- 1 Who paid for each of these tombs?
- 2 Why would the town council pay for the tombs and funerals of some citizens?
- 3 What roles could women play in providing for the dead?
- 4 What is frankincense? What does the gift of '30 pounds of frankincense' suggest about the tomb owner?

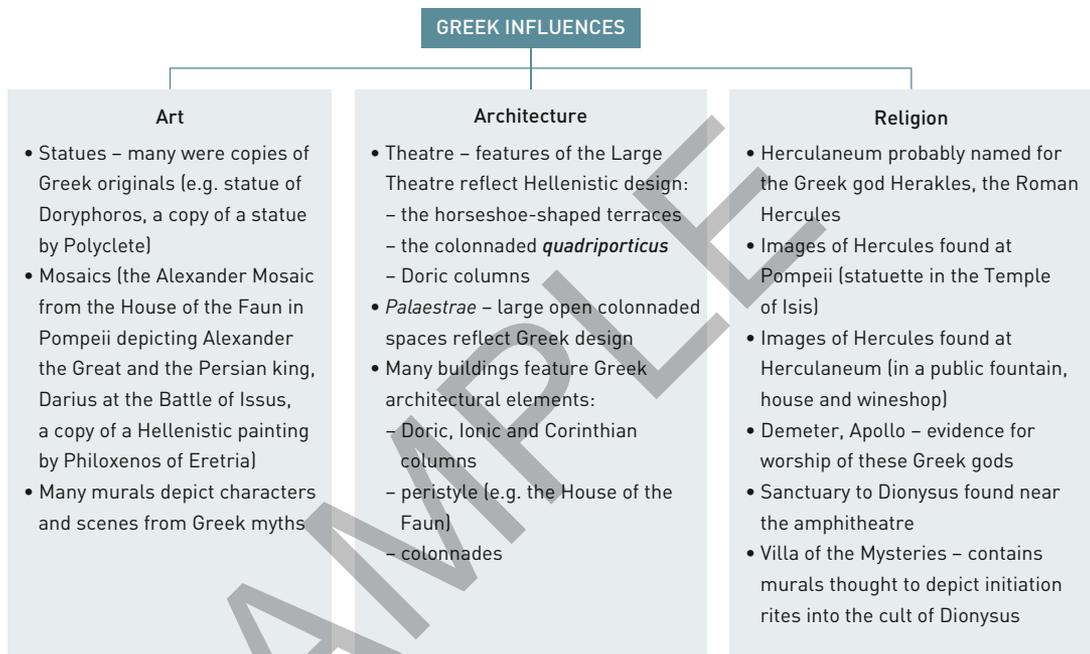
1.13 Check your learning

- 1 Discuss the following:
 - a What do the discoveries of foreign cults tell us about the religious attitudes and practices of the residents of Pompeii?
 - b What do burials reveal about social class in Pompeii?
 - c Why are there a lot of tombs of freedmen and women in Pompeii's cemeteries?
- 2 Research the foreign cults of Pompeii. Record the information you find in a table using these headings: God/Goddess, Origin, Responsibility, Evidence in Pompeii/Herculaneum. Include in your research: Isis, Osiris, Sarapis, Harpocrates, Anubis, Lakshmi, Sabazius.
- 3 Writing task: Explain what sources reveal about religion in Pompeii and Herculaneum. To help you plan your response:
 - identify the main features of religion – Roman cults, foreign cults, household gods, temples, tombs
 - structure your answer around these features
 - refer to specific sources and what they reveal about these features
 - explain the relationship between the sources and conclusions you draw – be careful to avoid a source-by-source description.

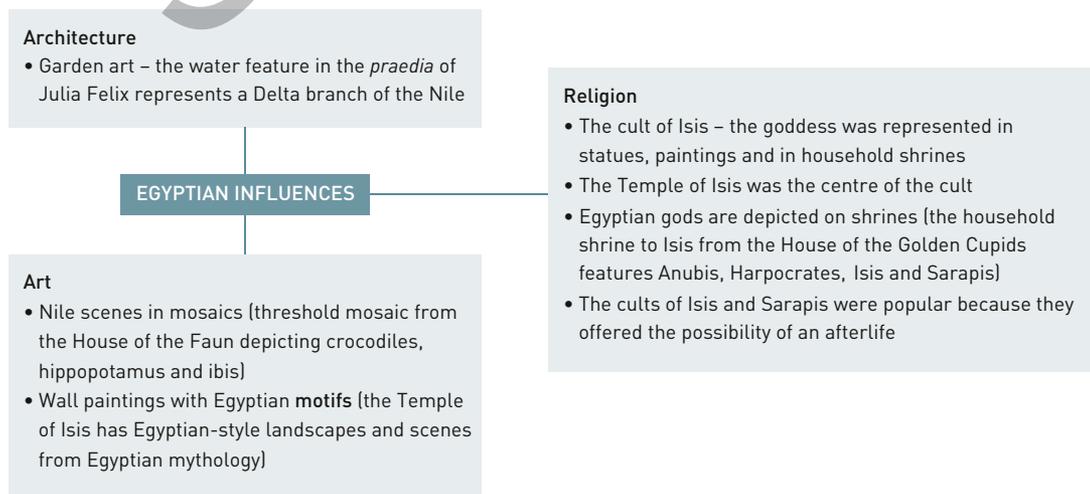
Influence of Greek and Egyptian cultures

Pompeii and Herculaneum were cosmopolitan cities that reflected the influence of foreign cultures in their art, architecture and religion. The extensive influence of the Greek and Egyptian cultures can be seen in many artefacts from both cities. Sources 66 and 67 sum up these influences.

■ **quadriporticus**
a rectangular area surrounded on all sides by a colonnade or covered walkway



SOURCE 66 Greek influences



SOURCE 67 Egyptian influences

■ **motif**
a decorative image or design, usually repeated to form a pattern



SOURCE 68 A wall mosaic in the House of Neptune and Amphitrite in Herculaneum depicting Neptune (the Greek god Poseidon) and his sea-goddess wife, Amphitrite

1.14 Check your learning

- 1 Research the Greek gods Herakles, Demeter, Apollo and Dionysus. Who was Ariadne? Why were these gods worshipped at Pompeii and Herculaneum?
- 2 Find further examples of Greek and Egyptian influences at Pompeii and Herculaneum from your study of this chapter.
- 3 Writing task: Explain what sources reveal about the influence of Greek and Egyptian cultures in Pompeii and Herculaneum.

To help you plan your response:

- identify the main features of Greek and Egyptian cultures – art, architecture and religion
- structure your answer around these features
- refer to specific sources and what they reveal about these features
- explain the relationship between the sources and conclusions you draw – be careful to avoid a source-by-source description.



SOURCE 69 Dionysus and Ariadne from the House of the Capitals at Pompeii

Reconstructing and conserving the past

Today, modern archaeologists and researchers are continuing the investigation of Pompeii and Herculaneum using a wide range of new methods and technologies. In many cases traditional interpretations are being challenged by new discoveries and fresh insights. These changing interpretations are evidence of the important concept of contestability in History.

A significant focus of this study involves an understanding of the sites today and the challenges they face. Despite their recognition as World Heritage sites, the long-term survival of Pompeii and Herculaneum is not guaranteed. Urgent issues include the need for protection and conservation of the sites. To accomplish these objectives, effective site management is crucial to tackle the problems of site degradation by natural and human agency, and to coordinate the work of a multitude of national and international bodies that have vested interests in the sites.

Changing interpretations: Impact of new research

Anyone who attempts to study Pompeii and Herculaneum will encounter differing interpretations of the evidence. Archaeologists and historians have frequently taken different perspectives on many issues. Today, these differences can come about because of new research and analysis, as well as the use of a range of new technologies.

The following are some examples of the contested issues facing students of Pompeii and Herculaneum.

Housing and social status

It was once believed that examination of a Pompeian house and its decoration would indicate the social status of its owner. However, more recent archaeological studies, such as the examination of 127 houses by Andrew Wallace-Hadrill, suggest that the artefacts found in these houses do not necessarily indicate the wealth of the owners. He suggests that the artefacts could have either been inherited or accumulated over time.

Population estimates

Traditionally, it was thought that by estimating the number of people who occupied a house you could calculate the population of Pompeii. Wallace-Hadrill argues that this is inaccurate because the number of people varied from one household to the next and that houses ranged from single-person dwellings to villas with dozens of people.

Commerce and trade

Earlier studies took the view that Pompeii was a trading city and that its wealth derived from external trade, particularly in textiles. This view is now questioned and it is considered more likely that Pompeii was a 'consumer city', where the wealthy elite consumed the manufactured goods and agricultural products rather than trading them.

Impact of AD 62 earthquake

It was once thought that the eruption of Vesuvius took the entire population of Pompeii by surprise. However, this view is challenged by Dr Penelope Allison, who believes that the people of Pompeii were aware of the impending eruption and that the rich and wealthy had long departed, probably soon after the earthquake. Dr Allison has studied 30 excavated houses in Pompeii. Her study suggests there was an ongoing deterioration and not a sudden, abrupt departure of the inhabitants. She believes that the poorer members of the population may have squatted in the abandoned villas for some years.

New technologies

Exciting investigations of the remains from Pompeii and Herculaneum are taking place using some of the very latest technologies. Some of these are explained below.

Villa of the Papyri scrolls

Conventional X-ray techniques have been unable to distinguish the ink used by the ancient writers from the papyrus fibres of the scrolls found in the villa at Herculaneum. However, recently, scientists have been able to virtually unroll and read the scrolls using a technique called X-ray phase-contrast tomography. This reveals the tiny differences in thickness of the papyrus where ink has been applied and enables the creation of a digital reproduction that can be manipulated in the same way as 3D images of the body. It is early days for the technique and, so far, only small portions of text have been read.

Plaster casts

The plaster casts of victims of Vesuvius are familiar to all who study the site. Since 2015, however, 86 casts have been scanned using computerised axial tomography (CAT) machines, also known as CT scanners, to produce 3D models of the victims. This technique has enabled further study of the health of the Pompeians who were caught in the ash fall phase of the eruption. The scans have revealed that many victims suffered severe head injuries, possibly as a result of being caught beneath their collapsing homes. Archaeologists are working to restore the existing plaster casts that are now very old. In the past, other plaster-free methods have been tried to preserve the remains, for example the resin cast of the Lady of Oplontis made in 1994; however, this technique is difficult to use and expensive. Plaster continues to be the best medium for cast-making, but care is necessary with its use to preserve the brittle bones that remain in the voids.



SOURCE 70 A member of the scientific team places the plaster cast of a young victim into the CAT machine for scanning. Hand-held scanners are used for casts that are too fragile to fit into the machine.



SOURCE 71 The resulting scan resembles 3D scans taken during pregnancy.

Via dell'Abbondanza Project

Archaeologists have used state-of-the-art equipment to create photo mosaics of the entire 900 metres of the Via dell'Abbondanza. This records the current condition of its façades, and will assist scholars studying the ancient street as well as conservators.

Digital photography and 3D imaging

A team from the University of Texas has created a fully navigable 3D model and reconstruction of the Villa of Poppaea at Oplontis in what is called the Oplontis Project. This model accurately records the condition of the villa and provides a digital version of the villa for further study. A further example of the use of 3D technology is the reconstruction of the House of Caecilius Iucundus in Pompeii by researchers at Lund University in Sweden.

1.15 Check your learning

- 1 The table lists some historians and issues that are subject to changing interpretations. Do some research and copy and complete the table. Take note of the role of new technologies.

HISTORIAN	ISSUE	DETAILS
Alison Cooley	Impact of the AD 62 earthquake	
Estelle Lazer	Health of residents of Pompeii; age and gender composition of the victims	
Penelope Allison	Room use in Pompeian houses	
Andrew Wallace-Hadrill	Number of brothels in Pompeii	
Willem Jongman	Textile manufacture in Pompeii	
Wilhelmina Jashemski	Types of crops, fruits and plants grown at Pompeii	

The following resources should help you:

- Alison Cooley, *Pompeii and Herculaneum: A Sourcebook*
 - Estelle Lazer, 'Skeletal analysis reveals Pompeii myths are getting long in the tooth'
 - Penelope Allison, 'Rethinking Pompeii'
 - Andrew Wallace-Hadrill, *Houses and Society in Pompeii and Herculaneum*
 - Willem Jongman, *The Economy and Society of Pompeii*
 - Wilhelmina Jashemski, *The Gardens of Pompeii: Herculaneum and the Villas Destroyed by Vesuvius* (book); 'Archaeological evidence for plants in ancient Vesuvian gardens' (article).
- 2 Research the use of new technologies at Pompeii and Herculaneum using the resources listed below. Report on your findings via PowerPoint or similar illustrated presentation.
 - Villa of the Papyri scrolls: 'New X-ray technique reveals snippets of ancient scrolls charred by Mount Vesuvius'
 - Plaster casts from Pompeii: 'Revealed – what's inside the Pompeii mummies'
 - 3D technology at Pompeii: 'Researchers reconstruct beautiful house in Pompeii by using 3-D technology'
 - You can add further examples of new technology by reading 'What's new in Pompeii' by Joanne Berry and Sarah Court.

Issues of conservation and reconstruction

Since the site of Pompeii was first discovered in 1748, it has been the pioneer, or victim, of every trend in the science of archaeology and excavation. It has given birth to new methods of exploration and conservation, for example Giuseppe Fiorelli's plaster casts. The site has also been exposed to damage caused by the elements, a myriad of tourists, mismanagement, corruption and lack of funding.

In the late 20th century, it became increasingly clear to all – archaeologists, tourists, governments and academics – that Pompeii and Herculaneum were in dire need of conservation and preservation. Between the 1970s and 1990s, a number of projects were undertaken to address the issues of the deterioration of Pompeii and Herculaneum, for example:

- a project by international scholars to record the most notable houses in Pompeii and their decorative features
- a computer database set up to record all the findings at the sites
- a re-examination of the early excavation reports and a re-evaluation of some of the buildings in Pompeii
- an emphasis by the Soprintendenza Archeologica di Pompei (the Italian authorities responsible for the site) on the need to preserve the site rather than conduct further excavation.

World Heritage listing

In 1997, Pompeii and Herculaneum, along with Torre Annunziata (Oplontis), were inscribed on the World Heritage List. Part of the justification for the listing was that these archaeological areas 'provide a complete and vivid picture of society and daily life at a specific moment in the past that is without parallel anywhere in the world'. In 2000, ICOMOS, the International Council on Monuments and Sites, reported its concerns for these World Heritage sites:

- physical and climatic influences in the form of humidity and changes of temperature
- the extreme decay of the famous Pompeian decorative paintings
- the use of unsuitable conservation materials, such as liquid glass, resin varnish and wax coatings
- inadequate roofing
- the use of unsuitable building materials for restoration (e.g. concrete)
- general neglect and vegetation (e.g. weeds breaking up the walls)
- microbiological infestation from algae, fungi and lichen.

This report emphasised that since inscription, little had been done to save the sites. Since 2000, however, Herculaneum has received considerable attention and assistance in the form of the Herculaneum Conservation Project, which has become a model for best practice.

Herculaneum Conservation Project

David Packard, a philanthropist and president of the Packard Humanities Institute, established the Herculaneum Conservation Project in 2001. Its aim was to support the local heritage authority, the Soprintendenza Speciale per i Beni Archeologici di Napoli e Pompei, in its conservation of the site. Since then, the two groups, supported by the British School at Rome, have addressed some of the most pressing problems. These include:

- deterioration of plaster and wall paintings
- water damage
- animal damage, for example pigeon droppings and birds pecking at carbonised wooden structures
- weed infestation.

The Project's aims and objectives are given in Source 72.

SOURCE 72

The overall aim of the Herculaneum Conservation Project is to support the Soprintendenza to safeguard and conserve, to enhance, and to advance the knowledge, understanding and public appreciation of the ancient site of Herculaneum and its artefacts. Its main objectives are:

- > to slow down the rate of decay across the entire site so that it can be maintained in future on a sustainable basis;
- > to test and implement long-term conservation strategies that are appropriate for Herculaneum and potentially applicable to other, similar sites;
- > to provide a basis of knowledge and documentation of Herculaneum so as to facilitate its future management;
- > to acquire new archaeological knowledge about Herculaneum derived as an integral element of the activities devoted to its preservation;
- > to conserve, document, publish and improve access to the artefacts found in excavations at Herculaneum;
- > to promote greater knowledge of and discussion about Herculaneum among the scientific community, the local population and the general public.

British School at Rome, Herculaneum Conservation Project



SOURCE 73 Conservation work on a mosaic in the House of Neptune and Amphitrite being carried out by the Herculaneum Conservation Project

Herculaneum today

Since 2002, when its conservation was considered to be worse than that in a war zone, Herculaneum has undergone a remarkable turnaround. In 2012, the director-general of UNESCO praised the work that had been done on this site, identifying Herculaneum as a model of best practice. This has largely been the result of work done by the Herculaneum Conservation Project.

Conservation remains the central aim of the project. A database of all excavation information and photographs has been created to be used in future consolidation and protection of the remains. Current work has revealed a second-floor latrine in the apartment block at *Insula Orientalis II*, the first one to be found this far above ground level. Other new discoveries to come from conservation projects include the layout of the *Basilica Noniana* and a beautiful statue head of an Amazon (see Source 39). Essential drainage works have led to the reopening of the sewer beneath *Insula Orientalis II* and the discovery of the wooden roof of the *House of Telephus*, which has now been reconstructed.

21st-century developments at Pompeii

While much progress has been made at Herculaneum, the situation at Pompeii has been less encouraging. Some developments have made worldwide headlines in recent times, for example the collapse of the *Schola Armaturarum*, or *House of the Gladiators*, in 2010. This brought allegations of neglect, lack of maintenance and inadequate conservation. The next few years brought further collapses following heavy rain.

In 2013, a joint ICOMOS–UNESCO reactive monitoring mission reported a number of issues, including the need for improved drainage to prevent damage by waterlogging of the ground, the need for visitor management and the lack of access to large parts of the site at Pompeii. It stopped short of recommending that Pompeii and Herculaneum be placed on the List of World Heritage in Danger because of significant progress in the ordinary maintenance program and the drafting of a new management plan. A partnership between the European Union (EU) and the Italian government to spend €105 million on the conservation and management of the site by December 2015 was another factor, as well as the development of the Great Pompeii Project (see Source 74).

A possible long-term solution: The Pompeii Sustainable Preservation Project (PSPP)

What happens after 2019 when the funding from the Great Pompeii Project runs out? An international consortium of research institutions, including the *Soprintendenza Pompei*, the *Fraunhofer-Gesellschaft* and the *Technical University of Munich*, Germany, has been inspired by the success of the Herculaneum Conservation Project (HCP). Recognising the HCP as best practice, the consortium launched a 10-year project in 2012 that will study long-term, sustainable conservation and restoration strategies at Pompeii. Unlike the Great Pompeii Project, which relies on funding from the EU and the Italian government, the PSPP is based on private fundraising. It requires €10 million to carry out superior quality research and conservation, so the consortium has put out an international call for sponsors. The first phase of the project, the documentation and restoration of monuments in the *Porta Nocera* necropolis, will last 5 years and will cost €6 million.

SOURCE 74 A summary of ICOMOS–UNESCO reports and responses since 2013

2013	<p>The Great Pompeii Project</p> <ul style="list-style-type: none">• This project was initiated by the Italian government to develop an urgent program of conservation, maintenance and restoration aimed at the protection of Pompeii.• It was expected to be concluded in 2015 and was considered crucial to the site’s survival, particularly in light of the collapses at the site.• Funding of €105 million from the European Regional Development Fund and the Italian government were integral to the success of the project.• The aims were to:<ul style="list-style-type: none">– consolidate the structures of the site starting with those at most risk– construct a drainage system to remove stormwater– consolidate and restore decorated surfaces and masonry– strengthen the video-surveillance system– protect buildings from weather exposure to increase areas available for visiting.
2015	<ul style="list-style-type: none">• The UNESCO delegation praised Italy for its conservation efforts at Pompeii for the first time.• It recognised the considerable efforts being made to adopt the World Heritage Committee’s recommendations and as a result extended the Great Pompeii Project until the end of 2016.• The mission considered that there was no longer any question of placing the property on the List of World Heritage in Danger.• It emphasised that the Italian government should ensure that adequate resources were available for the foreseeable future to deal with the ongoing needs of conservation and visitor management.
2017	<p>World Heritage Report</p> <ul style="list-style-type: none">• The continuation of the Great Pompeii Project is ensured until the end of 2019 with further EU funding of €45 million, as well as €40 million from the Italian government and €75 million from the Special Superintendency of Pompeii.• Conservation interventions for all buildings at risk in Pompeii are completed or ongoing, or will start soon.• Restoration works at Schola Armaturarum have begun.• Conservation of the Nola Gate is yet to be completed.• Risk mitigation relating to the excavation faces in the Regiones I, III, IV, V, VIII and IX is nearly complete.• The Management Plan is complete.

1.16 Understanding and using the sources

Source 72

- 1 What are the conservation and preservation priorities of the Herculaneum Conservation Project?

Source 74

- 2 What was the significance of the partnership between the EU and the Italian government in 2013?
 - 3 Why was the Great Pompeii Project considered crucial to the site’s survival?
 - 4 What was significant about the visit of the UNESCO delegation in 2015?
 - 5 Why would the World Heritage Committee be pleased with the 2017 report?
-

1.16 Check your learning

- 1 View *Herculaneum Conservation Project – The Video*. Take note of the results of the last 10 years' work at the site.
- 2 Use the websites of the Herculaneum Conservation Project or the British School at Rome to find information about what they do.
- 3 Find out more about the Pompeii Sustainable Preservation Project. How can it make a lasting contribution to the preservation and conservation of Pompeii?
- 4 In groups, find out more about some of the projects, national and international, operating in Pompeii, Herculaneum and the surrounding area. Search for 'Pompeii Projects – Soprintendenza Archeologica di Pompei' online. You can also look specifically for the following projects:
 - Oplontis Project
 - Anglo-American Project in Pompeii (preservation)
 - Restoring Ancient Stabiae Project
 - Pompeii Forum Project
 - Pompeii Archaeological Research Project: Porta Stabia
 - Kress Pompeii Conservation Project
 - Pompeii bakeries (project 'Pistrina')
 - Pompeii Quadriporticus Project.

Record your findings in a table like the one below.

PROJECT AND SITE	ITALIAN/INTERNATIONAL ORGANISATION RESPONSIBLE	FOCUS OF RESEARCH	CONTRIBUTION TO UNDERSTANDING/ CONSERVATION OF POMPEII/HERCULANEUM

- 5 Writing task: Assess Italian and international contributions to the conservation of the sites of Pompeii and Herculaneum.
To help you plan your response:
 - identify some Italian and international contributions to the conservation of the sites of Pompeii and Herculaneum
 - use them to structure your answer
 - make judgements about the relative success of these contributions
 - refer to specific evidence from Pompeii and Herculaneum to illustrate your description.

Ethical issues

Initially, ethical concerns in archaeology focused on the need to preserve sites from destruction through vandalism, looting and poor excavation practices. Some of the guiding principles that archaeologists work under today are relevant for Pompeii and Herculaneum. These include:

- stewardship and accountability to society
- public education and outreach
- public reporting and publication standards
- records and preservation of collections and artefacts.

Excavation and conservation

Today, archaeological ethics hold that archaeologists should make it a primary goal to identify, protect and conserve archaeological resources. The methods used for conservation and restoration are governed by an international code of ethics known as the Venice Charter for the Conservation and Restoration of Monuments and Sites.

Archaeological ethics require archaeologists to focus on the excavation and conservation of endangered sites rather than sites that are not under threat. Conservation is considered desirable so that future archaeologists will have a database to work from. This is highly relevant for Pompeii and Herculaneum. In 1999, Pietro Giovanni Guzzo, the then superintendent at Pompeii, declared a **moratorium** on all further excavations of both Pompeii and Herculaneum. This ushered in a period of debate among historians and archaeologists on whether to focus on conservation or excavation. In Pompeii, 44 of the 66 hectares of urban area are visible, and it has been generally agreed that the other 22 hectares must be left unexcavated to preserve them for the future.

Some **classicists**, however, have argued for continuing excavations in the hope of finding more texts revealing ancient Roman life. The Villa of the Papyri at Herculaneum is at the centre of the debate because it could contain more of the carbonised rolls already discovered. We have already seen the scientific breakthroughs made in reading these. The debate was renewed in 2016 when a group of British, American and French scholars called for excavation of the Villa of the Papyri at Herculaneum to be resumed. They wrote to the *Times* newspaper, insisting that the excavation of the Villa had to be completed. Source 75 contains extracts from the case made for excavation by Robert Fowler, Professor of Greek at the University of Bristol, and the rebuttal by Andrew Wallace-Hadrill, director of the Herculaneum Conservation Project.

■ moratorium

a temporary prohibition of an activity

■ classicist

a person who studies the classics, i.e. ancient Greek and Roman language, literature, art, architecture or culture

ON FURTHER EXCAVATION OF THE VILLA OF THE POPYRI

For: Robert Fowler

The Villa of the Papyri at Herculaneum contains the only library to have survived intact from the ancient Greco-Roman world ... The library would have contained many other books both Greek and Latin. The rest of it is most probably in the southeast corner of the villa, which the early tunnelers failed to reach. The lost works waiting to be found there stagger the imagination.

The villa was rediscovered and partially excavated in the 1990s. The excavation must be finished. Counter-arguments are familiar. Resources are desperately scarce, people say, and should be used for pressing emergencies (Pompeii is falling down), not for digging up new things that only add to the burden of conservation. The trouble is, this argument will always be advanced. It amounts to an argument for never excavating.

Meanwhile, the volcano may erupt again and put the villa effectively beyond reach ... One need not exhume the whole building ... The 1990s revealed previously unknown lower levels, offering good reason in themselves for further exploration. But the library makes this building unique. Posterity will not forgive us if we squander this chance. The excavation must proceed.

Against: Andrew Wallace-Hadrill

It is hard not to share the enthusiasm of the group of specialists who have renewed their pleas to resume excavation of the Villa of the Papyri at Herculaneum ...

Fourteen years ago, I argued in this newspaper that continued excavation was not a priority compared with conservation. Is the time right now? A decade's heroic work by the Packard Humanities Institute has addressed many of the existing problems of conservation on the main site at Herculaneum, but the villa may be regarded as a case apart.

Is there an imminent threat to the site of the villa? Volcanic eruption can scarcely do more damage to what lies buried: it is the parts exposed that are most at risk. And the problem is precisely that by exposing them in part, the risks have been greatly increased. The steep embankment around the trench is not stable: the edges constantly crumble and do damage to the protective shelter ...

There is a strong case for urgent work to stop the embankment crumbling and the flow of water further damaging the lower floors. This might reveal further papyri. It would certainly reveal finds of great interest. But the logic that drives any modern excavation must be preservation, not the pursuit of a dream.

'Further exploration at Herculaneum could "stagger the imagination"', The Art Newspaper, 20 May 2016

The final word for the moment comes from the World Heritage site's management plan of 2017. According to this document, there are no plans to excavate further at this time. Lack of staff already prevents a significant proportion of the sites already excavated from being visited. Any excavation will be limited to the completion of sites already partially uncovered.

Study and display of human remains

One of the most important ethical issues confronting archaeologists is the handling and disposition of human remains discovered during excavation. Human remains and the artefacts found with them connect us to the past, and how they are studied has ethical implications. The remains from Pompeii and Herculaneum have been treated in various ways depending on when they were uncovered.

■ **tableau**
(*pl. tableaux*)
a scene usually
presented on a
stage by silent
and motionless
costumed people

The first skeletons found in Pompeii were only considered important in that they were associated with the tragic events that had happened in the past. Many were used to create **tableaux** in the rooms of houses that had been discovered to entertain important visitors. Because they were not considered important in any other way, they were not recorded and eventually were stored in a jumble of disarticulated bones.

The majority of skeletons from Herculaneum were discovered in 1982 on the beach and in adjoining vaults. Initially, 139 of these were studied by Sarah Bisel, a physical anthropologist and classical archaeologist, but those remaining were left in situ for tourists to look at. They eventually began to disintegrate and became overgrown with weeds. Excavation resumed in 2009 and the remaining skeletons have been scientifically studied by Estelle Lazer, an Australian archaeologist and physical anthropologist from Sydney University, among others.

In Pompeii, many victims' remains were revealed when Giuseppe Fiorelli pioneered the technique of making casts. The decomposition of victims' bodies within the solidified ash created voids. These were filled with Plaster of Paris to produce casts of the victims at the moment of death. These casts can be found in a variety of locations at Pompeii. Some are displayed in a special area named the 'Garden of the Fugitives', while others are in glass cases or lying in workshops surrounded by a variety of artefacts and tools.

In 2015, 86 casts were scanned to produce 3D models of the victims, in preparation for an exhibition at Pompeii and the National Archaeological Museum of Naples. Source 76 is a report on preparation for the exhibition.

SOURCE 76

'Until now they had never been surveyed, out of a sense of ethics with which these human remains were always treated. No statues of plaster or bronze, but real people who should be treated with respect,' said Massimo Osanna, the archaeological superintendent of Pompeii, Herculaneum and Stabiae, who wanted an exhibit of just human victims.

... Osanna explained that these remains were restored and studied for scientific and archaeological purposes ... the restorations are taking place as part of the Grande Progetto Pompei (Great Pompeii Project) in which archaeologists, restorers, radiologists, engineers and an anthropologist are studying the genetic and anthropological profiles of the victims to better identify them and understand their way of life. The researchers' findings will be published and made into a documentary ...

'Casts of 86 Pompeii victims go on show', ANSA.it Arts Culture & Style, 22 May 2015

In 2016, a team led by Estelle Lazer used the 3D scanning techniques to investigate the skeletal remains within the plaster casts. Their finds challenge the previous claim that the people from Pompeii had excellent teeth. This investigation has found evidence of tooth decay and gum disease, as well as evidence of wear from a diet that included bread made from stone-ground flour. Dr Lazer's team has also found that the casts were not always made in expected ways.

SOURCE 77

The techniques used for producing the casts in the 19th and early 20th centuries were not well documented and we have found that a number of the earlier casts were almost devoid of skeletal material but were reinforced with metal rods and brackets. This was totally unexpected and has provided us with new information about how the casts were actually made.

E. Lazer, 'Skeletal analysis reveals Pompeii myths are getting long in the tooth', University of Sydney, 18 August 2016

1.17 Understanding and using the sources

Source 75

- 1 List the arguments put forward by Robert Fowler for resuming the excavation of the Villa of the Papyri.
- 2 What arguments does Andrew Wallace-Hadrill advance in reply?
- 3 Who do you think has the stronger case? Why?

Source 76

- 4 What is Massimo Osanna's ethical position on the plaster casts from Pompeii?
- 5 What is the justification for the restorations taking place as part of Great Pompeii Project?
- 6 Why is it important that the researchers know how the plaster casts were made?

Source 77

- 7 What has Estelle Lazer discovered about the making of the original plaster casts?

1.17 Check your learning

- 1 Look up the Venice Charter (ICOMOS International). What are the ethical practices governing conservation and restoration methods? You will find these in Articles 4–13.
- 2 Look back at the objectives of the Herculaneum Conservation Project. How do they reflect the ethical concerns of archaeologists?
- 3 Find out more about the treatment and display of the human remains from Pompeii. Search online for 'analysis of Pompeii plaster casts'.
- 4 Research what has been discovered from the remains at Herculaneum. A good source is E. Lazer, 'Victims of the cataclysm', in P. Foss & J. Dobbins (eds), *The World of Pompeii*, Routledge, 2009.
- 5 Summarise this topic by copying and completing the following table:

	POMPEII	HERCULANEUM
Discovery		
Storage		
Treatment		
Display		
Change over time		

- 6 Writing task: How has the understanding of ethical issues related to the study and display of human remains in Pompeii and Herculaneum changed over time?

To help you plan your response:

- identify some ethical issues related to the study and display of human remains in Pompeii and Herculaneum
- use them to structure your answer
- show the relationship between the change in understanding of these issues and different periods of time
- refer to specific evidence from Pompeii and Herculaneum.

Value and impact of tourism: Problems and solutions

Today Pompeii is one of the most popular tourist sites in the world. It attracts approximately 3 million people every year. Herculaneum is also very popular, although it attracts about half the visitors to Pompeii. Despite the economic gain since the 1997 law which directed that all money from tourists go to the conservation of the sites, tourism still has a negative impact at Pompeii and Herculaneum. Unfortunately tourism and conservation tend to be mutually unfriendly. Overcrowding and deliberate and accidental damaging behaviours contribute to the degradation of sites. Visitors can often be seen sitting, standing or leaning on walls, splashing water on mosaics, touching frescoes and walls, and even writing graffiti on them. Enforcement of the rules and regulations by custodians is frequently minimal. Warnings to visitors against damaging walls with their backpacks or taking flash photographs are not always given.

A recently identified problem stems from the large numbers of tourists from cruise ships who all tend to follow the same route around Pompeii because of their limited time. In 2016, the entrance steps of the Temple of Apollo were found to be wearing down due to large visitor numbers. A suggested solution, to divert visitors to other nearby sites such as Herculaneum and Oplontis, is already part of the management plan outlined in the World Heritage Report of 2017. This plan aims to initiate a sustainable tourism system for the area that will enhance the experiences of visitors and encourage the cooperation of the local residents, who are stakeholders, in



SOURCE 78 Modern graffiti on a fresco in the Fullonica of Stephanus. This is an example of deliberate damage made possible by inadequate or non-existent security.

the conservation of the World Heritage site. Part of this system will set visitor quotas for overused parts of the site and set themed itineraries for visitors on rotation, to ensure coverage of the whole site.

SOURCE 79

Such a method, involving a programmed rotation of themed itineraries to go with the annual rotation of visit areas, offers significant positive implications in terms of:

- > *educational effectiveness*, increased thanks to less congested sites and to visits directed to 'minor' sites and attractions;
- > *greater visitor numbers*, due not only to an increase in visits to minor sites and the spreading of visits throughout the day and throughout the year, but also to the marketing policies that the management of itineraries would allow to implement;
- > *increased protection*, as a direct consequence of being able to carry out a 'programmed maintenance' for all itineraries.

This organisation of tourist routes will be all the more necessary as it is the only possible way to coordinate tourist flows and the restoration and extraordinary maintenance work of the *insulae* and *regiones* as envisaged by the Great Pompeii Project.

UNESCO SITE N. 829. Archaeological Areas of Pompeii, Herculaneum and Torre Annunziata, MANAGEMENT PLAN, pp. 145–6



SOURCE 80 Massive numbers of tourists annually pack Pompeii's streets, causing unintentional damage to the site.



SOURCE 81 A mind map of tourism

1.18 Understanding and using the sources

Source 79

- 1 List what the UNESCO site management plan identifies as 'positive implications' of the rotation of themed itineraries and visit areas.
- 2 What roles will the 'minor sites' play?
- 3 How will there be increased protection for the site?
- 4 Why is the organisation of tourist routes especially necessary?

1.18 Check your learning

- 1 Read the article 'Presenting Pompeii: Steps towards reconciling conservation and tourism at an ancient site' by Alia Wallace.
- 2 In groups, discuss how you would manage tourism at Pompeii and Herculaneum.
 - a What are some of the issues you would have to deal with?
 - b Suggest strategies for dealing with these issues.
 - c What sort of education program would you institute to address some of the problems associated with visitor behaviour?
 - d How would you ensure that visitors respect the site and still get maximum satisfaction from their visit?
 - e What would you do about the volume of visitors?
- 3 Create a mind map like the one in Source 81 to sum up the value, impact, problems and solutions of tourism at the cities of Vesuvius.
- 4 Writing task: Discuss the value and impact of tourism at Pompeii and Herculaneum. How might the problems posed by tourism be addressed?
To help you plan your response:
 - identify some aspects of the impact of tourism on Pompeii and Herculaneum
 - use these aspects to structure your response
 - provide details to illustrate your explanation.

Using the range of archaeological and written sources available, it has been possible to construct a historical explanation of life in Pompeii and Herculaneum. Starting with the eruption of AD 79 and its impact, we have gone on to analyse the sources to develop an understanding of everyday life in these cities. We have synthesised evidence to construct a picture of the economy, social structure and political life in the towns, as well as of housing, food and dining, religion and other features. The artefacts and structures of the towns have provided evidence about the influence of foreign cultures. As one of the most researched and studied archaeological sites in the world, the cities of Vesuvius have benefited from new discoveries and interpretations based on the use of emerging technologies. They have also enabled judgements to be made about the issues surrounding the reconstruction and conservation of this World Heritage site.



FOR THE TEACHER

Check your [eBook](#) [assess](#) for the following additional resources for this chapter:

Answers

Answers to each *Check your learning*, *Understanding and using the sources* and *Profile task* in this chapter

Teacher notes

Useful notes and advice for teaching this chapter, including syllabus connections and relevant weblinks

HSC practice exam

Comprehensive test to prepare students for the HSC exam

[assess quiz](#)

Interactive auto-correcting multiple-choice quiz to test student comprehension



WOUNDED AMAZON
Capitoline Museums, Rome, Italy

This statue head is of a wounded Amazon. In Greek mythology, the Amazons were a tribe of female warriors from Asia and daughters of the god of war, Ares. Made of Greek marble, this statue is likely to be a Roman copy of the bronze original. A passage written by Pliny the Elder (Roman author and natural philosopher, 23–79 AD) records the presence of five bronze statues of

Amazons in the Temple of Artemis at Ephesus – a city said to be founded by the Amazons. His explanation for this was that from 440 to 430 BC, an artistic competition was held at Ephesus between five sculptors, each with their own style. This copy was discovered in the gardens of Gaius Maecenas – a patron of the arts during the Augustan era – in Rome, 1874.