



# ANCIENT HISTORY

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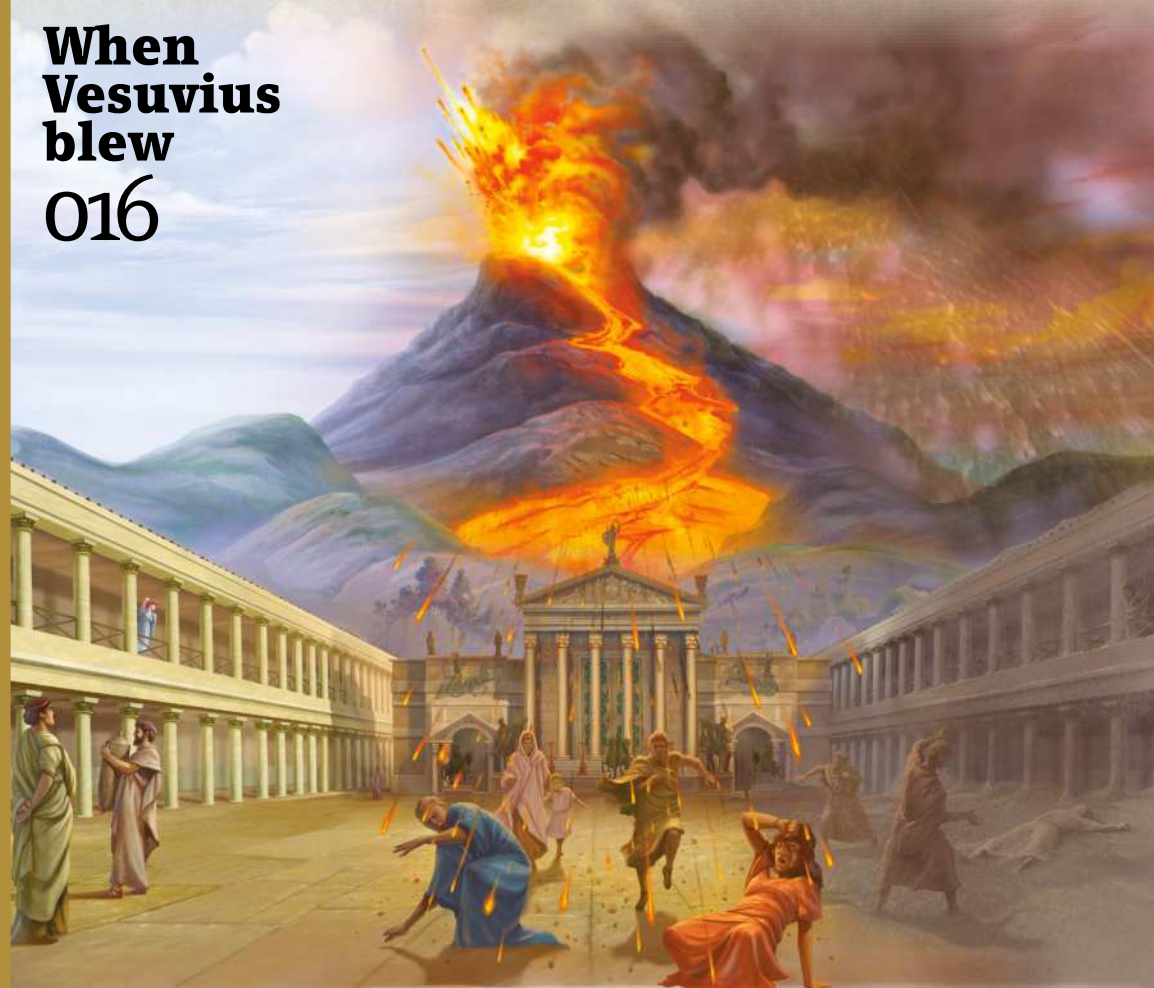
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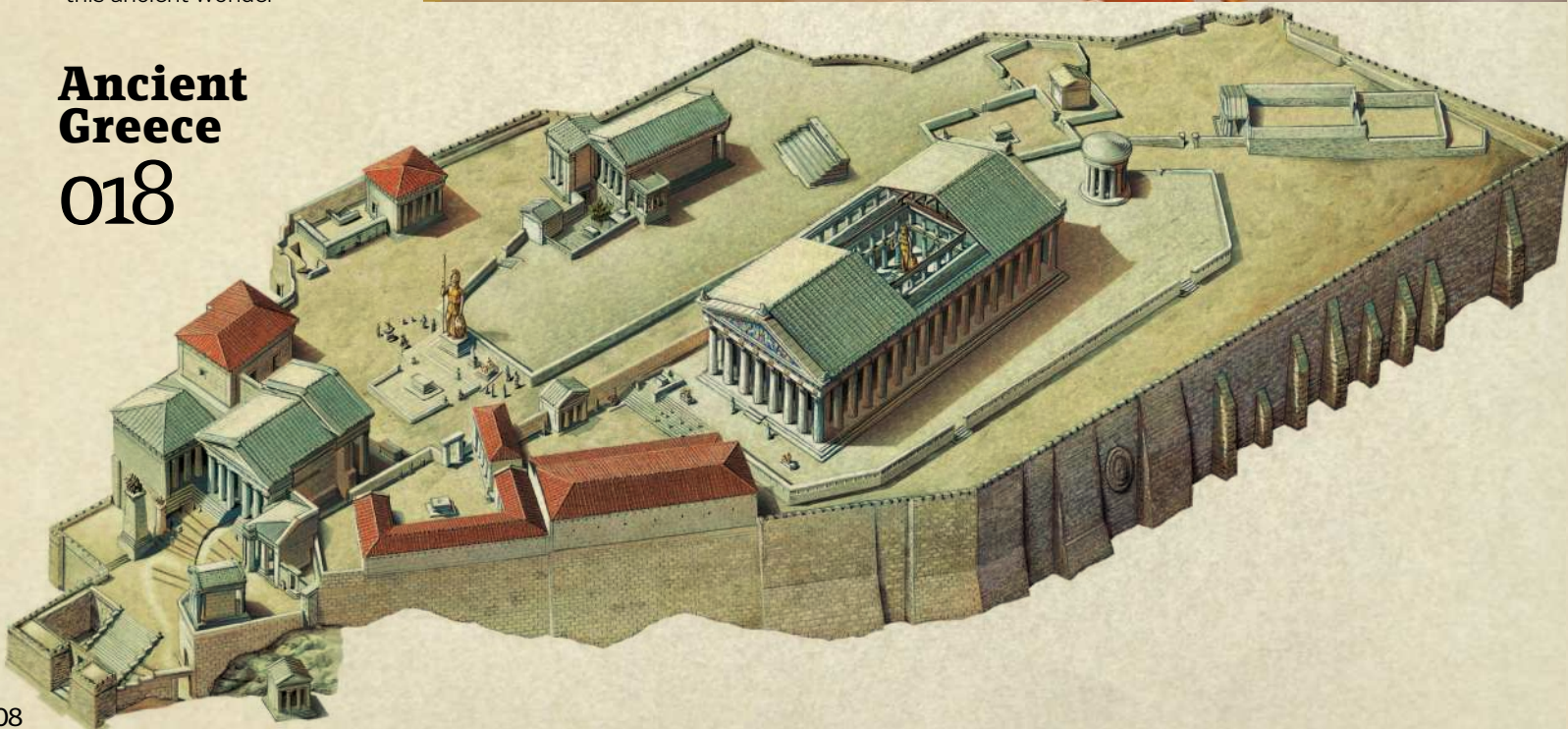
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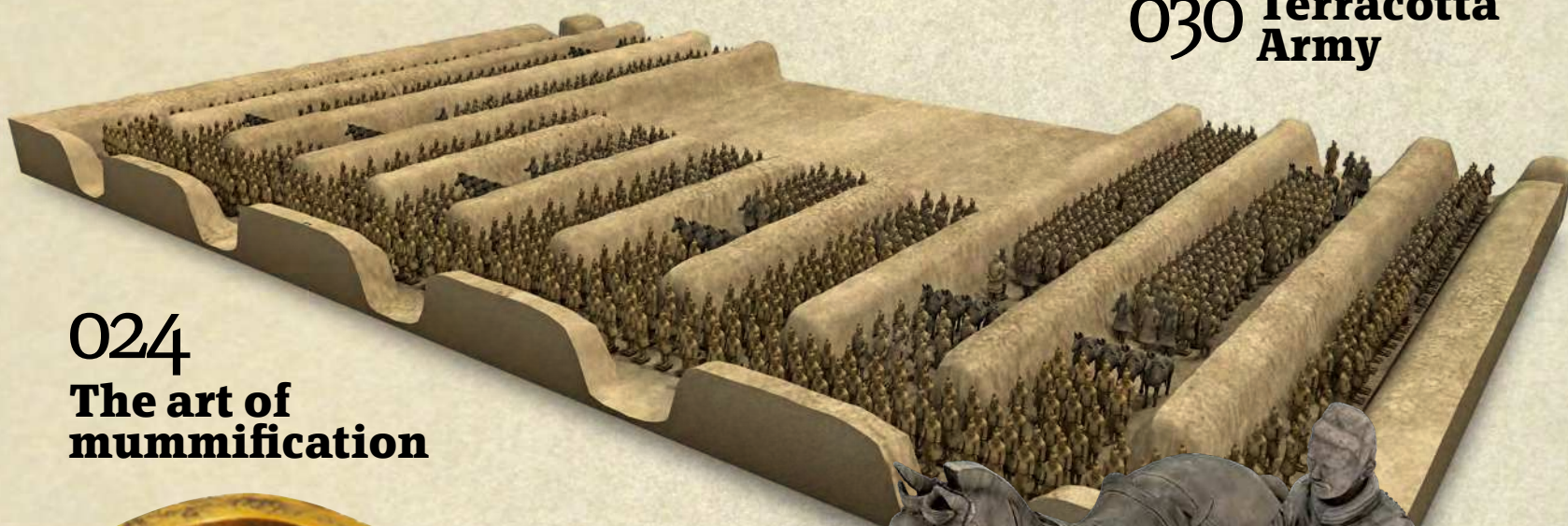




**026**  
**Who were  
the Celts?**



**030** **Terracotta  
Army**



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**The art of  
mummification**







# Mesopotamia: The creators of civilisation

Discover how society as we know it began in a small region of modern day Iraq

**T**he ancient region of Mesopotamia has fascinated, enthralled and perplexed historians and scientists for thousands of years. Unlike the ancient empire of Greece, or even Egypt, it was not a united nation. Made up of a vast collection of varied cultures, city-states and beliefs, Mesopotamia was a land of multiple empires and diverse civilisations. It is perhaps thanks to this variety that Mesopotamia gave birth to what we recognise as civilisation today.

The list of Mesopotamian innovations is endless, and it is difficult to contemplate how modern life would be without them.

Mesopotamia was home to the first ever cities, writing took form there and the oldest wheeled vehicles in the world were found in Mesopotamian ruins. Animals were domesticated, humanity came on leaps and bounds in agriculture, innovative new tools were crafted, weapons were swung and wine was drunk. Mesopotamians were the first people to study the night sky, track the Moon and declare that there were 60 minutes in an hour, and 60 seconds in a minute.

Mesopotamia was driven by religion, and it was one of the few things that united the lands that made up the region. From this religion

sprang customs, moral codes and social hierarchy. In many ways the Mesopotamians were ahead of their time, as women were regarded as individuals in their own right, free to own land, file for divorce and run businesses.

The Mesopotamian version of the Creation story declared that the world was formed when the gods achieved victory over the forces of chaos, and the same could be said in the creation of Mesopotamia itself. With its kings, taxes and trade, it was a triumph of man's ability to conquer and thrive, and it set the blueprints for countless cities, countries and empires that followed.

SUMER

**5400 BCE**

The city of Eridu is founded; it is considered the first true city in the world.



**3600 BCE**

Writing first emerges in the form of cuneiform. Reeds are used to make marks in wet clay.



**3500 BCE**

Religion is first referenced in writing, in the form of Sumerian cuneiform tablets.



**2334-2218 BCE**

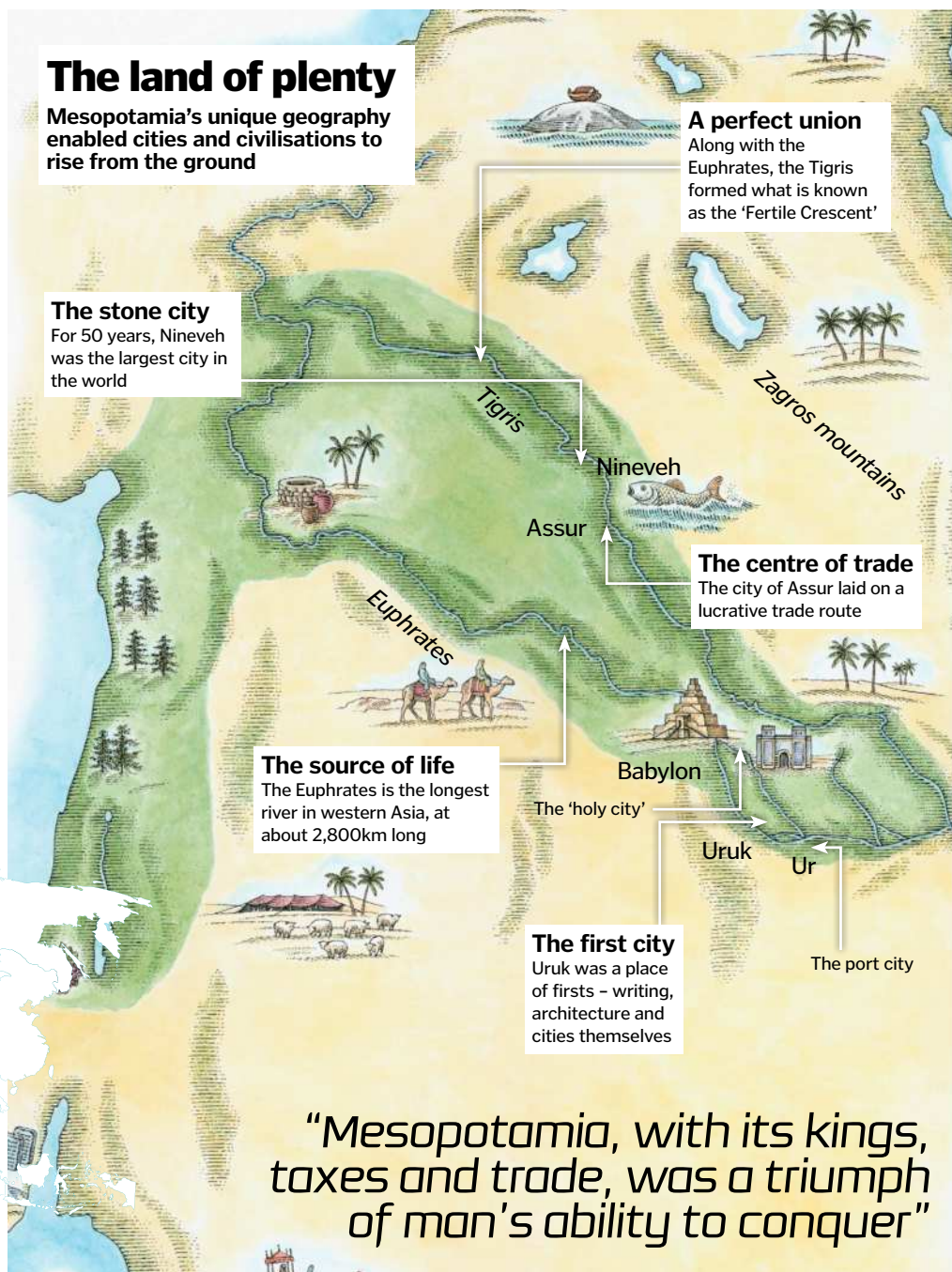
During this period Sumer is conquered by the powerful emperor Sargon the Great and comes under the rule of the Akkadian Empire.



## What it was like to live there

The word 'Mesopotamia' means 'between the rivers', which literally describes the location of the region. Mesopotamia lay between the Tigris and Euphrates rivers, which today flow through modern day Turkey, Iraq and Syria. All the regions of Mesopotamia experienced different geography, which led to variation in how people there lived. Lying between two rivers had some risks as the land was subject to frequent and unpredictable flooding, which could play havoc with farmers' crops. These floods went hand in hand with periods of drought. However, the swelling rivers helped to create very fertile soil that supported plants even with minimal rainfall, and allowed boats to be used as a quick means of transportation. Mesopotamians became skilled farmers and traded their crops for resources they were lacking, such as building materials like wood, metal and stone. The people took advantage of the ready supply of water by building canals to support the trade network and were able to flourish in spite of the lack of natural resources in some areas.

### ON THE MAP



## The rise of civilisation

Three of the major cultures that arose in Mesopotamia and influenced society

### SUMERIANS

The southernmost region of Mesopotamia, Sumer comprised modern day southern Iraq and Kuwait. Sumer was first inhabited in approximately 4500 BCE, or possibly even earlier. It is in Sumer that the first cities in the world were established, starting with Uruk. Sumerians believed that their cities represented god's triumph over chaos.

### BABYLONIANS

Meaning 'gate of the gods', Babylonia lay in central southern Mesopotamia (modern day Iraq). Its earliest days are a mystery lost to rising sea levels, but from 1792 BCE the famous king Hammurabi came into power and the city of Babylon – built upon the Euphrates river – became the beating heart of Mesopotamia.

### ASSYRIANS

Located in the Near East, the ancient kingdom of Assyria comprised regions of Iraq, Syria and Turkey. It drove technological, scientific and warfare developments in Mesopotamia. The Assyrian empire gradually expanded to unite most of the Middle East, increasing their power and wealth to become a formidable force.

### 2150-1400 BCE

*The Epic of Gilgamesh* is written during this time. This famous poetic work stands as one of the oldest pieces of western literature in existence.



### 2100 BCE

The Sumerian King List is created, establishing the idea of kingship as a divine institution.

### 1800 BCE

All the cities of Sumer, and of Mesopotamia, are united by Hammurabi, who makes Babylon his capital.

### 1750 BCE

A combination of invasion, migration and the sacking of Ur brings an end to the Sumerian civilisation.







# The world's first cities

With its reliable source of food, people gathered in Mesopotamia and formed the very first cities

Mesopotamia was home to some of the very first cities in existence, leading many to link it to the birth of true civilisation. The origin of these cities is still unknown today, although many theories exist. One suggestion is that the development and building of temples created a place where people would gather, and thus served as points of contact between different groups of people.

Others believe that people sought sanctuary from natural disasters. As the Mesopotamians were able to develop technology to help them control the nearby rivers, such as levees, they could ensure a good crop. They had no need to be

nomadic, and were able to settle in one place comfortably. It is for this reason that all the early cities were built along the two major rivers.

From the moment the Sumerians began to form these cities, it forever altered human history. People went from being ruled by nature, to attempting to control it and make it work for them. By 4500 BCE the first recorded city rose in the form of Uruk. However, the only urban structure at this point was the temple, which regulated all economic and social matters.

The central purpose of these early cities was to help regulate trade, as southern Mesopotamia

was reliant on outside resources. This need encouraged the spread of urbanisation. However, communication between the cities was difficult, so each city developed into an individual city-state. This led to territorial disputes and, inevitably, war.

In order to keep their cities protected, the Mesopotamians built fortifications, and walled cities rose. Migration to these cities increased, and more buildings were erected. Cities gradually expanded and rulers were proclaimed, who then began looking outwards for trade and conquest.

## Processional Way

The Processional Way was a road that ran through the city and connected many of Babylon's central buildings and temples

## A designed city

Mesopotamian cities were among the first to involve urban planning, and there is evidence that cities such as Babylon were built to fixed plans

## Multi-purpose gate

Gates in Mesopotamia were for more than protection; they were sacred places of worship, where public performances were viewed and where kings made appearances

## The gate of kings

The astonishing Ishtar Gate was the eighth gate and main entrance of the city of Babylon. Covered with lapis lazuli-glazed bricks, it was a gleaming, shimmering light in the Babylonian sunshine. It sent a strong message to any enemies: Babylon was a city favoured by the gods. At 12 metres high, the doors and roof were made of cedar, while the gatehouse featured 15-metre-high walls adorned with images of animals and flowers. The gate was constructed by King Nebuchadnezzar II to impress not only his people, but also the gods.

## Multi-storey living

Most Mesopotamian cities featured buildings with multiple levels for housing. Even the poor had three levels of living space

## Walls of Babylon

The walls of the city were considered impregnable as they reached up to a massive 27m in height

### 1894 BCE

The first Babylonian dynasty emerges; this Amorite dynasty forms a small kingdom including the city of Babylon.

### 1792 BCE

Hammurabi begins his reign as ruler of Babylon. He transforms it from a tiny town to a powerful city.



### 1792-1750 BCE

During his reign, Hammurabi introduces some of the earliest examples of laws in the form of the Code of Hammurabi.



### 1755 BCE

Hammurabi conquers and unites Mesopotamia under his rule, and Babylon becomes known as a holy city.



## Towering temples

Ziggurats were temples built on high, stepped platforms. Although they originated in Sumerian cities in 2000 BCE, they gradually spread to all of Mesopotamia, including Babylonia and Assyria. The stepped towers were mainly constructed from sun-dried bricks layered between reeds. It is believed that many ziggurats featured a shrine at the top, but no examples of this remain.

Although their exact purpose cannot be verified, it is known that ziggurats were linked to religion, and each ziggurat was connected to

large temple complexes. There was a belief in Mesopotamia that the gods resided in the Eastern mountains; therefore building high temples would more closely connect the people with god, linking heaven with Earth.

A practical purpose of the high platforms was to escape any rising floodwater that rushed into the lowlands. The structure of the ziggurat, which was accessible only by three stairways, also ensured that the rituals conducted within remained secret and sacred.



The facade and stairway of the ziggurat of Ur have been reconstructed by the Iraqi Department of Antiquities

### An unsteady base

Bricks were sun-baked, so the buildings were unstable and had to be routinely destroyed and rebuilt. This caused the level of the cities to gradually rise

### Etemenanki tower

At the centre of Babylonian life was the Etemenanki ziggurat. It had seven storeys, measured 91m tall and may have even been finished in silver and gold

### Hanging gardens

Possibly built by King Nebuchadnezzar II, if they did indeed exist, the hanging gardens were an astonishing feat of engineering

### Irrigation

Because of the unpredictable flooding of the river, Babylonians developed a complex series of ports and canals, as well as dams across the city

### Euphrates river

The river ran through the city and was used by merchants and craftsman to transport and trade their goods across Mesopotamia

## Circa 1750 BCE

Babylonian mathematicians introduce the concept of place value in numbers. Astronomers also name the planets and constellations.

## 1595 BCE

Babylon is sacked by the Hittite king Mursili I. This marks the beginning of the Babylonian 'dark ages'.



## 1595-1155 BCE

The Kassite dynasty rules over Babylonia. They rename Babylon 'Kar-Duniash' but it continues to serve as the capital of the kingdom.

## 1225 BCE

The Assyrian ruler Tukulti-Ninurta I destroys the armies of Babylon and sacks the city. He goes on to become king.





# Seven ways Mesopotamia changed the world

The phrase 'the foundations of civilisation' is often used while talking about Mesopotamia. But what exactly does this mean? Is civilisation simply people living together, or does it involve more? Agriculture had emerged by 8000 BCE, and art was produced for thousands of years before Mesopotamia rose. However, Mesopotamia took these aspects of human culture and transformed them into civilisation as we know it today.

Brought together by a common goal – to find food – the Mesopotamians developed some of the earliest writing known to man, borne out of necessity to record accounts and crop yields. However, it later developed to represent more abstract ideas. As people were gathered together, spiritual practices were also refined, and the population began to share a common belief system. With this established, the priests, who claimed to be able to communicate with the gods, took their place at the top of the social hierarchy, and slowly a class system developed. This emphasis on religion inspired moral codes, which led to formal rules and, in turn, punishment for those who disobeyed.

A steady food supply meant the Mesopotamians could pursue other aspects of life, such as technology and science. They made groundbreaking advancements in the areas of mathematics and medicine. However, this social structure also revealed the darker aspects of humanity, such as war, slavery and expansion, and with so many people gathered together, diseases spread rapidly.

As the civilisation developed, it inevitably had an influence on other cultures. It is believed that Babylonian astronomy influenced Greece, India and even China. The early Mesopotamian codes of laws also had a profound effect on lawmaking in the Near East, and the introduction of taxes and a standing army influenced countries worldwide. In fact, historians are still exploring the huge impact that Mesopotamia had on the ancient world, and the world we live in today.

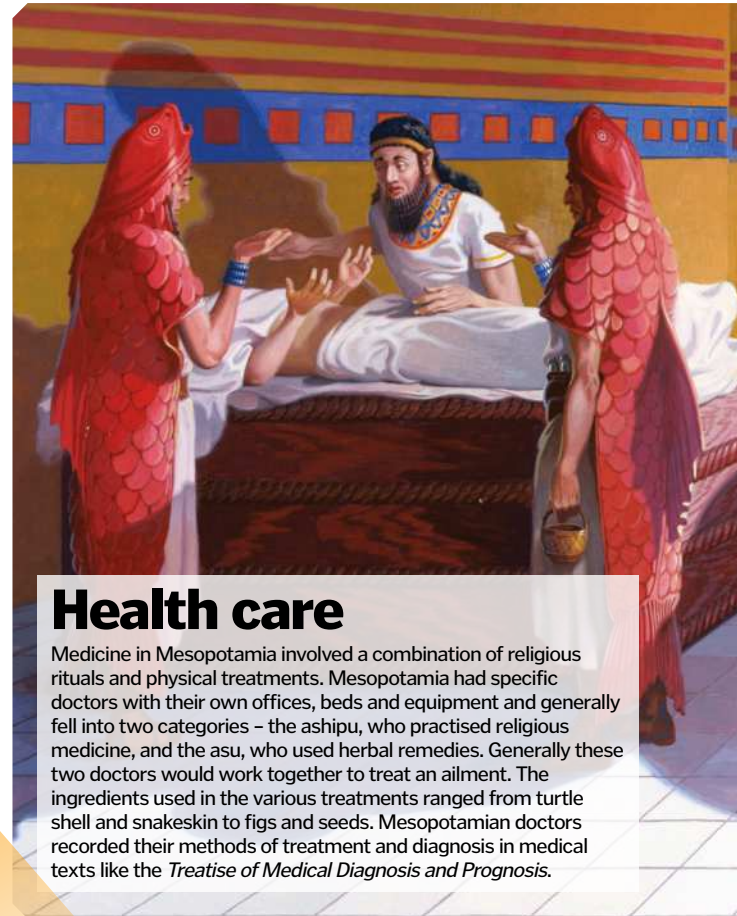
## The creation of writing

Writing began in Mesopotamia towards the end of the 4th millennium BCE as a way to record crucial information about crops and taxes in pictorial form. These early tablets developed into a script, which bears close resemblance to writing today. This system of writing is commonly known as cuneiform and comprised of wedge-shaped marks in clay. Gradually the number of characters used in cuneiform decreased from 1,000 to around 400, which ensured more clarity in the script. By 2500 BCE cuneiform was advanced enough to portray emotions such as fear and hope.

The word cuneiform itself simply means 'wedge-shaped'



The remains of the Code of Hammurabi were discovered in 1901 in excellent condition



## Health care

Medicine in Mesopotamia involved a combination of religious rituals and physical treatments. Mesopotamia had specific doctors with their own offices, beds and equipment and generally fell into two categories – the ashipu, who practised religious medicine, and the asu, who used herbal remedies. Generally these two doctors would work together to treat an ailment. The ingredients used in the various treatments ranged from turtle shell and snakeskin to figs and seeds. Mesopotamian doctors recorded their methods of treatment and diagnosis in medical texts like the *Treatise of Medical Diagnosis and Prognosis*.

## Thou shalt obey

Law codes as we know them were first seen in Mesopotamia. One of the earliest is the Code of Hammurabi, which features 282 laws dealing with a huge variety of issues in great detail, from marriage to theft. For example, if a man rents a boat to a sailor and it is wrecked, the sailor has to give the man a new boat. Although it is the most well-known, the Code of Hammurabi was pre-dated by other law codes, such as the code of Lipit-Ishtar and those written by the Sumerian king Ur-Nammu, who described the purpose of his laws as protecting the weak from the mighty.

### 2600 BCE

The city of Ashur, capital of Assyria, is founded, along with other Assyrian cities.

### 1813–1776 BCE

Shamshi-Adad I rules Assyria. He expands the empire, secures Assyria's borders and builds up a powerful army.

### 1472 BCE

The kingdom of Mitanni, a powerful northern Mesopotamian state, annexes Assyria and the land loses its independence.

### 1365–1330 BCE

Ashur-uballit I defeats the Mitanni, and under his leadership, Assyria develops as a powerful and rapidly expanding empire.

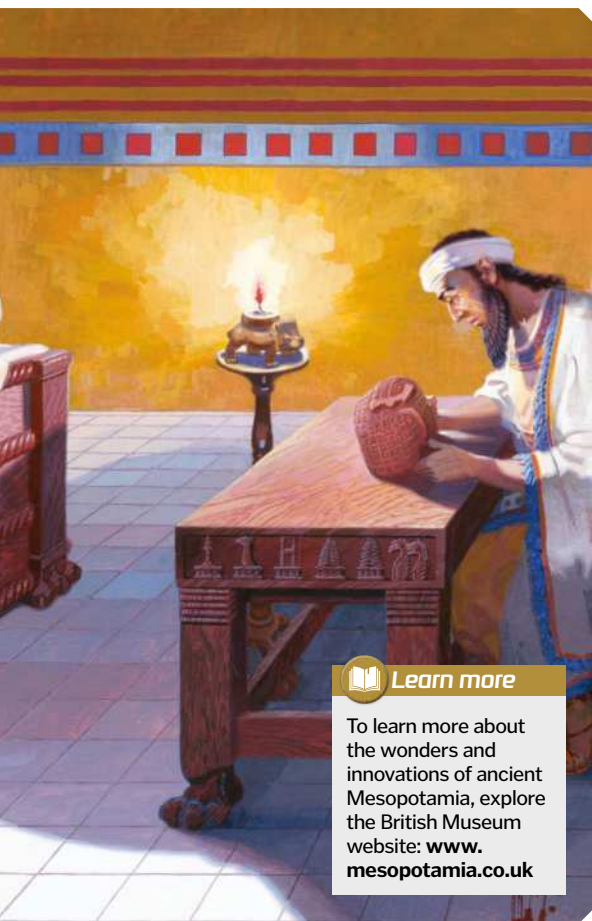
### 1244–1208 BCE

The warrior king, Tukulti-Ninurta I, reigns. Assyria expands to its greatest extent and defeats the ruler of Babylonia.



## Only the strong shall lead

Mesopotamia was made up of several city-states which each had their own leaders and government, with kings ruling over individual regions. This led to a lot of internal fighting between different kings for land and resources. The first kings were the leaders of armies, who then went on to continue to lead during peacetime. Because of the strong emphasis on religion, the kings often served as high priests and therefore were linked to the divinity of god, and claimed to be god's representatives on Earth. Some of these kings, such as Sargon, sought to unite many of the city-states under one leader and capital.



### Learn more

To learn more about the wonders and innovations of ancient Mesopotamia, explore the British Museum website: [www.mesopotamia.co.uk](http://www.mesopotamia.co.uk)



A Sumerian proverb said, "Man is the shadow of god, but the king is god's reflection"

## Mesopotamian money

Mesopotamians used silver rings thousands of years before the first coins were made. In around 2500 BCE a 'shekel' of silver became the currency of Mesopotamia, with one month of labour being worth one shekel, and a slave worth between ten and 20. Prior to this, clay tokens in a variety of sizes and shapes were used for trade and barter. There were at least 16 different types of these tokens that represented various things, such as rope, sheep's milk, perfume and honey.



This Carthaginian shekel from 310-290 BCE is similar to the Mesopotamian shekel

The Standard of Ur, an artefact dating from around 2600 BCE, depicts wheeled chariots being used in battle



## The basis of time

The Mesopotamians were trailblazers in their concept of time. They were the first in recorded history to use a base 60 numerical system that led to our 60-second minutes and 60-minute hours. Many believe that this helped the Babylonians make such impressive advances in mathematics, as 60 has many divisors. They also used a lunar calendar, which comprised 12 lunar months, at an average of 29.5 days each. This left the Mesopotamians short by around 11 days a year, so they added seven months in each 19-year period to keep the seasons aligned.



The Royal Game of Ur, one of the oldest in the world, was played with early Mesopotamian mathematics

## A wheely late invention

The wheel was actually invented at a surprisingly late point of human history, with the oldest example from Mesopotamia dating to 3500 BCE, in the Bronze Age. It is likely that the wheel was developed individually by different cultures around the same time. Evidence shows that Mesopotamians used this invention for pottery first, before adapting the design for transport with chariots. Wheels did offer advantages to transportation, but they took a great deal of time to make as smooth as possible, so sledges were still commonly used alongside the wheel.

### 1000 BCE

Assyria establishes the first cavalry force. As this is before the invention of saddles, the warriors ride bareback.



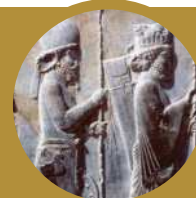
### 668-627 BCE

During his reign, King Ashurbanipal establishes a huge library, housing a collection of thousands of clay tablets.



### 612 BCE

Many Assyrian cities, including Ashur and Nineveh, are sacked and destroyed by a combined force of Medes, Persians and Babylonians.







# How Vesuvius destroyed Pompeii

The catastrophic eruption that buried an entire city

**A**t noon on 24 August in 79 CE, Mount Vesuvius erupted near the bay of Naples in southern Italy, in what would become one of the most devastating natural disasters of ancient times.

The nearby cities of Pompeii and Herculaneum were completely buried by the ash and pyroclasts that spewed from the

volcano, helping to preserve them in extraordinary detail. We also have detailed information about the eruption itself thanks to Pliny the Younger, who wrote two letters detailing what he saw from his mother's house in Cape Misenum. His famous description of the plume as "shaped like a pine" caused this type of eruption to be named a Plinian eruption.

## 20 hours of terror

How that fateful day unfolded

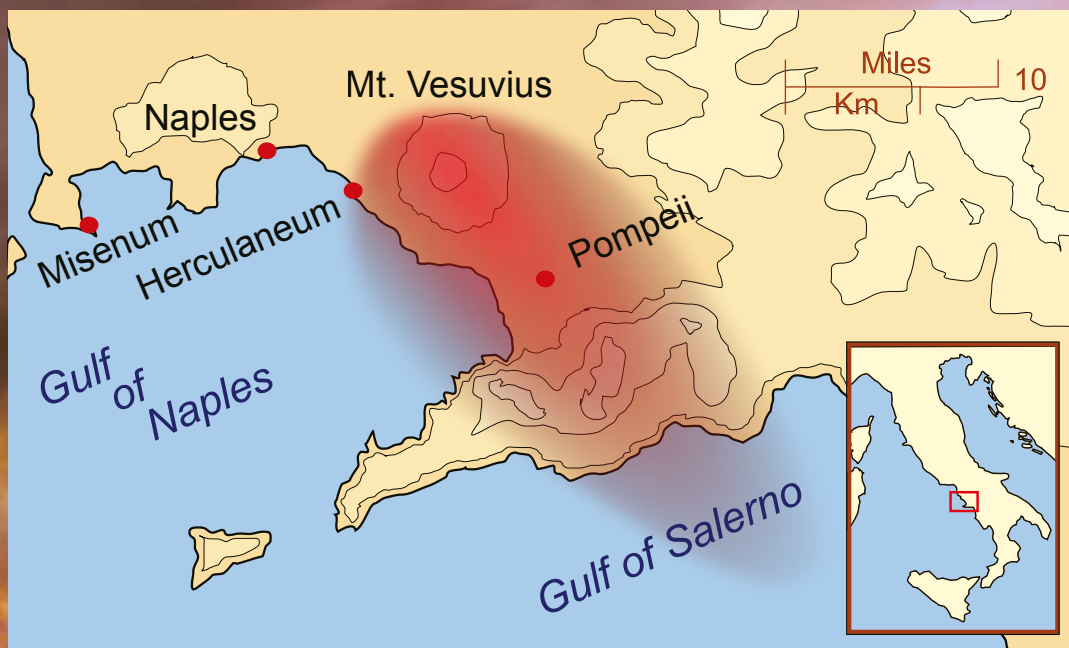
**1 10am, 24 August, 79 CE**  
For four days prior to the eruption, small earthquakes are felt throughout the city of Pompeii. As this happens every year without consequence, the inhabitants think nothing of it. Many of them congregate in the public forum, the political, religious and commercial heart of the city

**2 1pm, 24 August**  
After several small explosions, Vesuvius erupts, sending a tall cloud of lava and ash over 20km into the sky. The cloud blocks out the Sun, plunging everything into darkness, and violent tremors cause buildings to collapse. People run toward the coast in search of rescue, but rough seas make escape by water impossible

**3 9pm, 24 August**  
Hot ash and lumps of volcanic rock rain down over Pompeii, which is downwind from the volcano. People become trapped in their houses as debris blocks the doors, and roofs begin to collapse from the weight of the ash and rock. Many people are also killed by the emissions of sulphuric gases



**4 12am, 25 August**  
The ash cloud reaches its maximum height of 30km and then collapses, sending a pyroclastic surge of hot gas and rock down the volcano's northwest slope toward Herculaneum. Moving up to 700km/h and with temperatures up to 400°C, the surge instantly kills everyone it touches



**5 6am, 25 August**  
As dawn breaks, the cloud collapses for the last time, sending another pyroclastic surge toward Pompeii that kills everyone in its path. By the time the eruption is over, Pompeii is buried underneath five metres of volcanic material, while Herculaneum is buried under 20 metres

*"By the time the eruption is over, Pompeii is buried underneath five metres of volcanic material"*

## Anatomy of the eruption

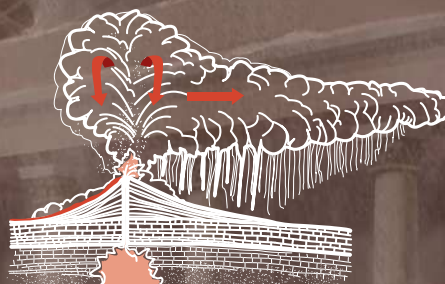
### Initial explosion

After more than 800 years of inactivity, pressure inside the volcano became too great. The built-up gases burst through the thick layer of lava that had plugged the crater and a column of ash climbs upward.



### Spreading cloud

The wind blows the cloud toward the southeast, and it spreads to nearly 100km in width from side to side. Ash falls on Pompeii at a rate of 15cm per hour for an entire day.

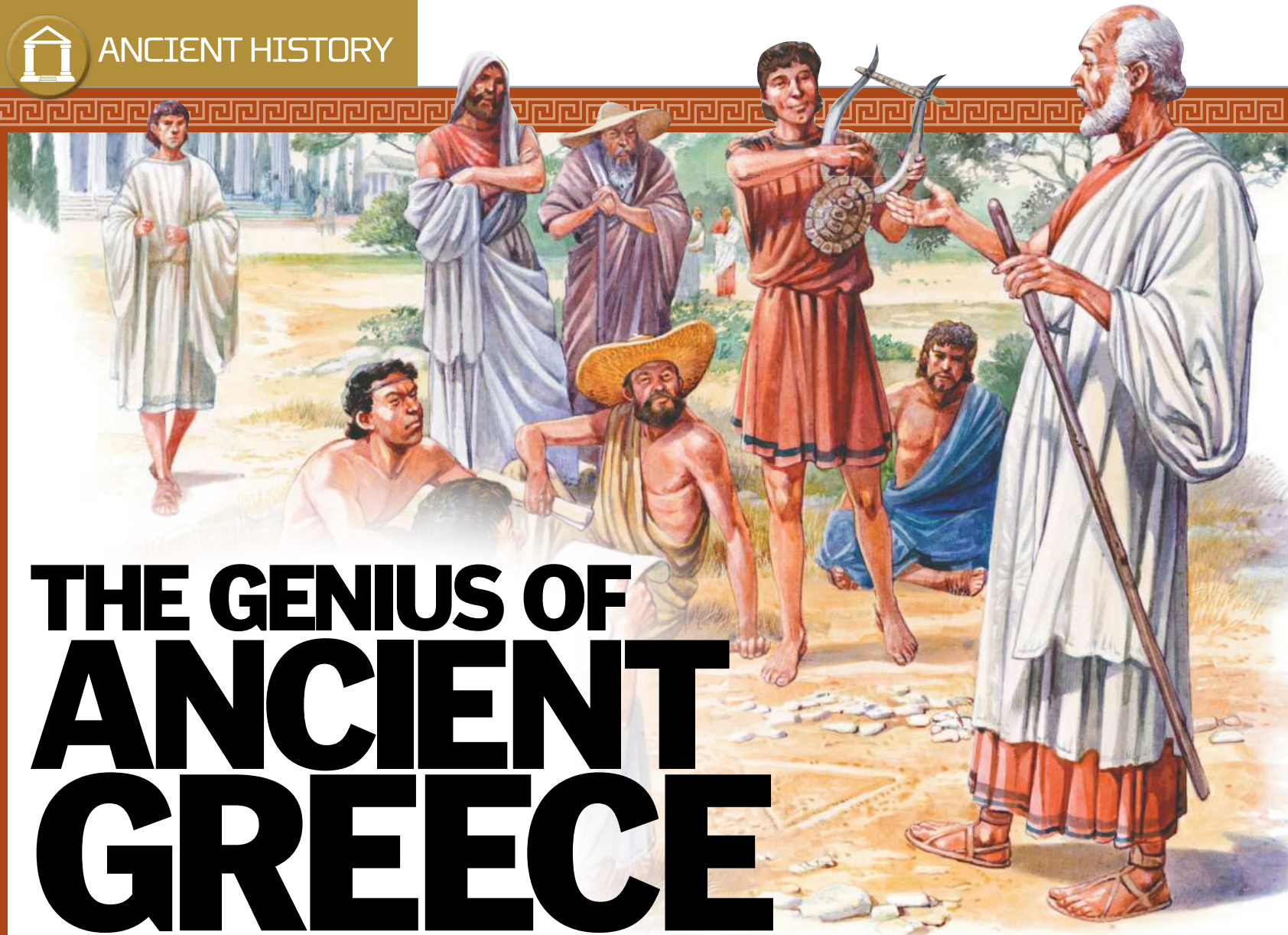


### Pyroclastic flows

As the ash cloud collapses, volcanic debris rolls down the sides of the volcano toward Herculaneum, which is 6km away, and Pompeii, which is 10km away. Anyone in the path of the flow had their body burned to the bone in seconds.







# THE GENIUS OF ANCIENT GREECE

How the inventions, discoveries and culture of this great civilisation changed the world

**A**ncient Greece was pivotal for the development of Western culture and society. As Europe moved into the Iron Age, Greece was a leading light in the progression of ancient civilisation. Athens is often credited as the key player in this advancement, but other Greek states like Corinth, Thebes, and even the warlike Sparta, also contributed. Ancient Greece improved almost every facet of the economy, society, military and politics. The Greek phalanx was one of the most feared military formations in the ancient world; Greek theatres held the best plays, and athletes competed at the pinnacle of ancient sport: the Olympics.

Greek architects designed some of the finest ancient structures, and philosophers questioned

the world in new ways. Homer's works *The Iliad* and *Odyssey* were unmatched in their time. Unlike civilisations before it, it's believed many educated people in ancient Greece were literate. Hundreds of words in the English language have their origins in the ancient Greek language such as 'encyclopaedia', 'telephone' and 'microscope'. The word 'democracy' is another, and it comes from the Greek 'demokratia', which means 'power to the people'.

Greek city-states were ruled by kings for the majority of the civilisation's history, but for a brief period around the 5th century BCE, Athens was a democracy. It wasn't the same system as we know it today (women and slaves weren't allowed to vote), but this incredibly important development

has shaped world politics ever since, and anyone who can vote today owes it to the Greeks.

The divisions of the city-states curtailed scientific advancement as regions often fought among themselves. Finally unified under Alexander the Great in 336 BCE, Greek trade boomed and its culture spread throughout the Mediterranean, Asia Minor and North Africa. The Romans may have conquered Greece, but they were so impressed by its culture and technology, they copied Greek mythology, engineering, architecture and military tactics. The influence of ancient Greece is so important to the Western world that if it had been destroyed during its many conflicts with Persia, European civilisation could have turned out very differently.

## Major events in ancient Greek culture

6000 BCE

### First human settlement

The first Neolithic activity in Greece, including evidence of early agriculture.

2700 BCE

### Minoan civilisation on Crete

The Minoan civilisation blooms under a system with no hierarchical structure.

1500 BCE

### Mycenaean era

Greece is now in the Bronze Age and the Mycenaean culture develops the Greek language.



c.900 BCE

### First pottery

Made in a classical geometric style, the first pottery unique to Greek culture is made.





## Greek city-states

The most powerful and influential territories in Greece's classical era

### Olympia

The location of the first Olympic Games was a sacred site in ancient Greece. Olympia also held the Heraia Games for women, and had many temples dedicated to the worship of the gods



### Delphi

Delphi had some of the most important temples in all of Greece. It is said to have been home to the oracle Pythia, and Greeks would travel to seek her wisdom

### Corinth

Known for its high quality pottery, Corinth was a major trading and educational centre in ancient Greece. The city-state had its own currency and was home to a major type of classical Greek architecture



### Thebes

The most powerful city-state before the rise of Athens and Sparta. Thebes enjoyed a heightened period of power after siding with Sparta against Athens. In Greek mythology it was the birthplace of Hercules

DELPHI

THEBES

CORINTH

ATHENS

OLYMPIA

SPARTA

### Sparta

The warlike city-state had a powerful army and helped protect Greece against the Persians. Every male citizen was a warrior, taught from age seven, to form a professional and widely-feared army

### Athens

One of the most powerful and wealthy city-states, Athens had a strong navy and the first democracy. It had a long-standing rivalry with Sparta that eventually resulted in war



## Macedonian unification of Greece

The Peloponnesian Wars (431-404 BCE) tore Greece apart, with the hegemony of Athens broken by Sparta and its allies. Greece remained divided, with a series of uneasy alliances leaving it weak and open for invasion. Around this time the power of Macedonia was growing and King Philip II of Macedon took advantage of a weakened Greece. His army defeated a strong alliance of Athenian and Theban soldiers at the decisive Battle of Chaeronea in 338 BCE. Sparta did not join in the battle but would also later be defeated. Philip was now the undisputed ruler of Greece, and although he was later assassinated, this brought his son Alexander III to the throne. A born leader, Alexander the Great unified Greece under his rule and made it his intention to bring the Persian Achaemenid Empire to its knees. Alexander went on to lead one of the most powerful empires in the ancient world, which stretched from Greece in the west to India in the east.



Philip and Alexander's rule united Greece and established it as a major military power



ARCHAIC PERIOD

c.800 BCE

### Works of Homer

The 'blind bard' writes the poems *The Iliad* and *Odyssey*.



776 BCE

### Olympic Games held

The first Olympics take place as a festival dedicated to Zeus. The event is held every four years for centuries.



740 BCE

### Greek alphabet

Created from a Phoenician script, evidence of the first Greek alphabet is found.

700 BCE

### Birth of musical study

Sparta and Argos hold the first organised studies of musical theory and the first documented musical competitions.





# The Acropolis

Athens' defining citadel became an enduring symbol of ancient Greek architecture

Many major Greek cities were dominated by an Acropolis at their centre. Meaning 'high city', it was a well-defended hill that citizens would retreat to when the city was under attack. The city-states of Thebes and Corinth both had an Acropolis, but by far the most famous of these citadels stood in the centre of Athens. The original structures were improved after victory at the Battle of Marathon in 490 BCE, but were destroyed by Xerxes' Persian troops when they sacked Athens ten years later.

After the Persian defeat at Salamis, the city used its wealth to restore splendour to the Acropolis. Vast building projects got underway and the area became a huge centre of worship for the goddess Athena, the patron deity of Athens.

The grandest temple of all was the Parthenon, which was constructed between 447 and 432 BCE. It housed a magnificent ivory statue of Athena and was the store of the city's gold

reserves. The area became a place of worship and culture rather than just defence, with the temples of Athena Nike, Erechtheion and Propylaia also built in a 50-year period. With the help of modern restoration efforts, the Parthenon stands above the city to this day.

## The Acropolis of Athens

How grand building programmes in the 5th century BCE turned the Acropolis into a sprawling citadel

### Athena Nike

Inside the temple was a wooden statue of Athena. She held a helmet and a pomegranate tree to symbolise war and peace

### Monumental gateway

Known as a Propylaia, this was a decorative entrance to the complex. Its columns and roofs made it an imposing structure

### Acropolis entranceway

The main entrance to the Acropolis was a wide stone staircase that led to the monumental gateway

The Acropolis rises 150 metres above Athens and is around six hectares in size

*"The area became a huge centre of worship for the goddess Athena"*



### Erechtheion

This most sacred temple in Athens was in Greek mythology – the site where Athena and Poseidon disagreed on who would have control of the city

### Natural entrance

The Propylaia was constructed around the natural entrance to the Acropolis and citizens ascended via a ramp and marble steps

625 BCE

### Advancements in pottery

Black figure pottery becomes popular in Greece, but is later superseded by red figure pottery.



621 BCE

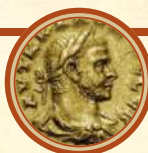
### Draco's code of law

Devised by an Athenian aristocrat, these became the city's first written law codes and legal system.

594 BCE

### First coins

Athens now uses a currency as trade and industry begin to develop.



508 BCE

### Birth of democracy

'The father of Athenian Democracy', Cleisthenes introduces a new political system as the public become involved in politics.

CLASSICAL PERIOD



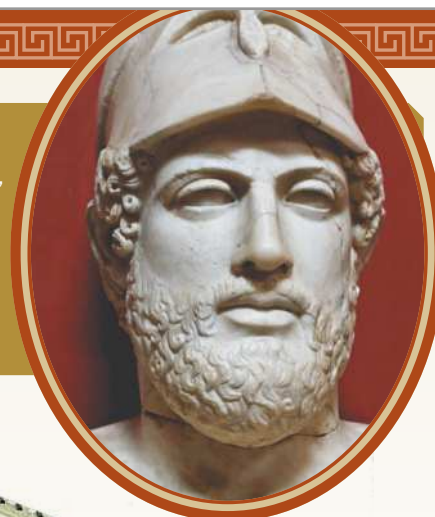
## The Parthenon

The popular Athenian general and statesman Pericles was the driving force behind the reconstruction of the Acropolis after it was destroyed by the Persians.

Pericles wanted the citadel to be larger and grander than ever before. The project was an expensive venture and Pericles skillfully used tributes paid to the city to fund it. Many of the finest architects and sculptors of the ancient world, along with hundreds of labourers, contributed.

Pericles is remembered as a hero of Athens and shortly after his death from the plague, the city lost the Peloponnesian Wars against Sparta and entered a period of cultural darkness.

Under Pericles' leadership the city entered a golden age of prosperity



### Sanctuary of Zeus Polieus

An open-air sanctuary with a small barn nearby, oxen were sacrificed to Zeus here once a year in the annual ritual of Bouphonia

### Theatre capacity

17,000 spectators could cram into the theatre's tiers of stone seats to enjoy some of the most famous ancient Greek plays



### Parthenon

The grand centrepiece of the Acropolis was built without concrete and was held together with iron clamps

### Theatre of Dionysus

Dedicated to the patron god of drama and wine, it was one of the oldest Greek theatres

## The Panathenaic Games

The most important of all the Athenian festivals was the Panathenaea. A rival to the Olympic Games, it was celebrated every four years and held all over the city for around a week between July and August. The Games were based around three types of contests: musical, gymnastic and equestrian, and included hoplite races in full armour and pankration (a brutal mix of wrestling and boxing). The event was organised by ten administrators called the Athlothetai, and men, women and children all competed in the events, from professional athletes to freed slaves. The winners were mostly presented with valuable prize amphoras, which they often sold for coin. Champions gained so much money that they could make a career out of participating in these festivals.



The Games held a pentathlon including running, javelin, discus and long jump

483 BCE

### Mining precious metals

Athens establishes silver mines, which allow Themistocles to create a fleet to defeat the Persians at Salamis.

468 BCE

### Development of the theatre

Tragedian Sophocles writes plays for theatre, which become immensely popular.



447 BCE

### Building the Parthenon

Construction begins on the Parthenon, a temple dedicated to Athena, the goddess of wisdom and war.



420 BCE

### Atomic theory of matter

Philosopher Democritus hypothesises the existence of atoms and different types of matter.





# Innovations and inventions

The ancient Greeks devised many clever mechanisms and systems that are still used today

From the Olympics to democracy, Greek civilisation had a huge impact on the West. The Babylonians may have created the first maps, but it was the Greeks who pioneered the study of cartography. Philosopher Anaximander drew up the first world map, which was divided into two sections: Europe and Asia. The Greeks also revolutionised the field of geometry with Pythagoras' theorem and the refined value of pi.

Before the Greeks, ancient civilisations blamed disease on the wrath of gods. While the Greeks still believed in divine retribution, physicians like Hippocrates observed patients suffering with conditions and recorded signs and symptoms. This helped to advance surgery, anatomy and public health. There was also progress in the knowledge of the natural world, with the differences in plants documented for the first time. Greek thinking also resulted in inventions like the buckle, metal anchors and the crane.

City-states like Athens were built to a set plan. Surveyors devised streets and squares with enough room for theatres, markets and temples. This is one of the first recorded instances of

urban planning, and provided cities with space and facilities. Multiple urban areas were based around the Hippodamian Plan: a city in a rectangular grid – helpful for navigating and organising the streets for both economic and defensive reasons.

Perhaps the most obvious relic of ancient Greece today is its architecture. Ionic and Doric columns are still used on many neoclassical buildings around the world, such as the US Capitol building and the Arc de Triomphe.

Even after the fall of ancient Greece, its legacy lived on. The Roman Empire was inspired by Greek mythology and built upon many Greek ideas of geometry, astronomy and culture.

## The Archimedes' screw

The physics of Archimedes' screw, an ingenious Greek invention for raising up water or grain

### Turning the chamber

A hand crank turns the spiral chamber, which scoops up the water or grain to carry it upwards

### Specialised shape

A helix turns inside a hollow wooden cylinder and the rotation creates upward momentum

### Incline

The screw's plane is angled at about 45 degrees and is much easier than using buckets

### Uses

Archimedes designed the screw to help with irrigation and to remove water from Greek ships

### Modern uses

Today, the system is used in water treatment plants to pump sewage, and to reclaim land below sea level

### No spillage

The shape of the continuous screw holds the water, not allowing it to trickle back down

## Other Greek inventions

Inventions we still use today, from the shower to the alarm clock



### Alarm clock

They worked by using a dial to indicate the time, which would sound with the drop of pebbles onto drums.



### Water mill

The water mill ground grain to produce rice, flour, lentils and cereals, important for feeding the population.



### Odometer

This mechanical instrument measured distance and was used by the Romans to help build their roads.



### Shower

The Greeks were the first to use piped water to shower themselves. The showers were fed by a plumbing system.

380 BCE

### The Athens Academy

Plato opens the first Western higher learning centre to educate students on mathematics and science.

c.359 BCE

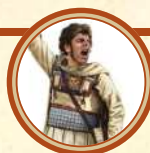
### Invention of the catapult

An early stone-throwing siege machine is invented in 4th century BCE, and becomes a commonplace weapon in large scale conflict.

336 BCE

### Alexander the Great

The Macedonian king Alexander spreads Greek language and culture through Asia via an expansive and formidable empire.



335 BCE

### Aristotle's lyceum

Alexander's tutor founds a school to rival Plato's that lectures students on physics and biology.

HELLENISTIC PERIOD

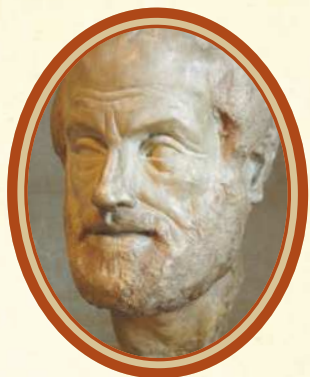


# Great Greek minds

Meet some of the most prominent thinkers in all of ancient Greece

## HIPPOCRATES

Hippocrates was one of the first to observe the effect diseases had on the body. He separated medicine from religion, and by recording what he saw – whether it was a pale face or dry skin – he helped develop methods to prevent and cure diseases.

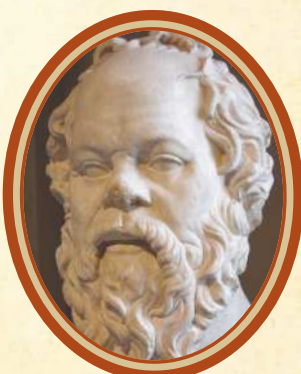


## SOCRATES

Socrates was a renowned philosopher, and Socratic teaching concentrated on asking questions, fostering debate and forming ideas through conversation. The Socratic method is still used by educators today to encourage their students to think critically.

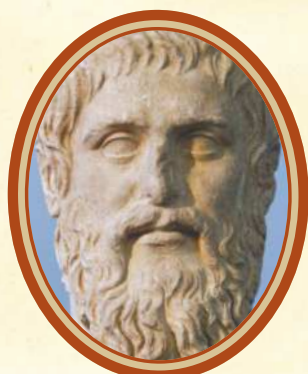
## ARISTOTLE

The so-called father of logic wrote over 150 works and spoke on the topics of philosophy and biology like no other. He believed that existence was based on achieving personal happiness.



## EUCLID

A leading mathematician, Euclid wrote 13 books known as *The Elements*, which collected 300 years worth of ancient ideas on geometry. Euclid made these earlier works accessible to many and it has become incredibly influential in teaching.



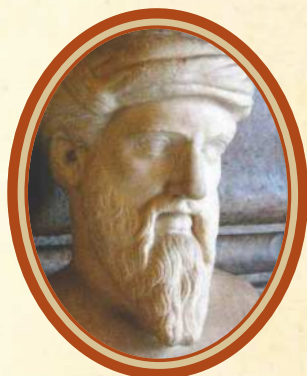
## PYTHAGORAS

Known as the father of numbers, Pythagoras is world-renowned for his eponymous theorem for deducing the length of the third side of a triangle. Many works were published in his name by his loyal followers.



## PLATO

The teacher of Aristotle was a student of Socrates who spread his mentor's teachings. He lends his name to the idea of Platonic love and founded the first higher learning institute in the West.



## What the Greeks did for us

The legacy of ancient Greece in the 21st century



## Olympics

Dedicated to Zeus, the Olympic Games first took place in 776 BCE.



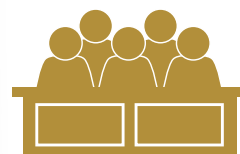
## Hippocratic oath

This sacred oath was written by Hippocrates and promises that a doctor will do everything they can to help their patient.



## PEER JURY

The justice system and the concept of a trial were advanced in Athens.



## Philosophy



The Greeks were the first to constantly question the world and develop new scientific methods of thought.

## Theatre

Both dramas and comedies were performed in front of audiences.



## SPHERICAL EARTH THEORY



Pythagoras was the first person to propose that the Earth was a sphere after observing our round Moon.

## Democracy

For a time, male Athenian citizens had equal political rights and freedom of speech.



A α  
B β

## Language

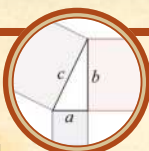
The ancient Greek writing system inspired the Latin alphabet and is still in use.

*"City-states like Athens were built to a set plan"*

c.300 BCE

### Mathematical advancements

Mathematician Euclid writes *The Elements*, an influential collection of 13 textbooks on geometry, which included work on Pythagorean theorem.



c.250 BCE

### Archimedes' screw

The great Greek polymath Archimedes conceives the Archimedes' screw, just one of his many inventions.



238 BCE

### Syracuse theatre

A popular Greek theatre is expanded significantly into one of the largest known in the ancient world.

146 BCE

### Roman Greece

The Romans invade Greece. Impressed by Greek architecture, cities become tourist attractions and many customs are copied.





# The art of mummification

Mummies have been found in many parts of the world, but Egyptian mummies are the most well-known due to their distinctive appearance and unique embalming process

**A**ncient Egyptians used to bury their dead directly in the hot sand, which dried and preserved them somewhat. When they began using caskets, the bodies decayed instead. Around 2600 BCE, Egyptians began experimenting with a way to preserve their ancestors. They learned that bodies decayed from the inside out, starting with their organs. Embalmers perfected a process by which the organs were removed and the body dried prior to burial. This practice, known as mummification, was used for nearly 3,000 years.

Mummification was an expensive process and could take up to 70 days to complete. The embalmers worked in open tents, out in the desert and away from the general population. After washing the body, they removed the brain from the skull. In order to get into the brain cavity, embalmers put a chisel up the body's nose and hit it with a hammer to crack through the bone. Then, they inserted a long hook to pull out brain matter.

After cutting a slit in the left side of the body, embalmers removed the abdominal organs. They were washed, wrapped in linen and packed in jars. Natron, a naturally occurring salt, was added as a drying agent. The body was rinsed with wine and filled with incense and natron, then covered with more natron. A slanted table allowed fluids to drip from the body as it dried while guards kept away scavengers. Once the body was dry, embalmers wrapped it in linen strips in several stages and coated it with resin. The linen helped keep the body together and prevented moisture from entering. A rigid scaffold was then fitted over the body and a funeral mask attached to the face. Finally, the completed mummy was placed into a container decorated to look like a person, called a *suhet*. ✨



An extreme way of wrapping up warm for winter

*"The practice of mummification was used for nearly 3,000 years"*





# Britain's tribal territories

Before the Roman invasion in 55 BCE, Britain was characterised by a large number of ancient tribes, each with its own culture

**W**hile the first modern humans populated the area we now call Britain at the end of the Ice Age (6,500 BC), very little is known about the intricacies of their culture and peoples until recorded history begins circa the Roman invasion of 55 BC. Indeed, if it were not for the Roman chroniclers of the time such as Tacitus and Ptolemy, who met the ancient tribes of Britain either in trade or in war, our sketchy picture of these peoples would be even more incomplete than it is today. However, centuries of historical records, stories and archaeological finds have at least given us a snapshot of their lives, leaders and customs.

Before the Roman invasion there were over 27 separate tribes living in Britain. These people had grown from the early hunter-gathers who had inhabited the area, and later the farmers who had developed agriculturally focused societies and who had built such sophisticated structures as Stonehenge. For the last 600 years BCE though, influenced much by the arrival of the Celts from the continent, expansionist tribal kingdoms headed by dynastic and highly territorial rulers and chieftains arose, delivering cultures of fierce violence and sophisticated manufacture, artistry and trade.

While the Romans are often credited with bringing a unified currency, as well as structured towns and a host of amenities and technology, these features – at least in part – were already integrated into areas of British tribal society. Some tribes such as the Venicones buried their dead in stone casings, very much akin to a tomb or coffin. Others, like the Iceni, Catuvellauni and Atrebates, had already created and distributed currency throughout their territories.

Over 200 years, however, from 55 BCE until well into the 2nd Century AD, the ancient tribes of Britain were either conquered or indoctrinated into the Roman empire, a process that largely converted the population's attitudes and cultures to those shared on the continent and saw a gradual climb in society towards standards of administration, architecture, sanitary systems and health care that resonate with today's society. ⚙️



## Head to Head ANCIENT BRITISH TRIBES

### MOST REBELLIOUS



#### 1. Iceni

**Located:** Norfolk

**Facts:** One of the most rich and powerful tribes in Britain, the Iceni revolted against the Romans after the death of their client-king Prasutagus and were led until her death by Prasutagus' wife, the renowned Queen Boudicca.

### MOST CIVILISED



#### 2. Catuvellauni

**Located:** South-east

**Facts:** One of the most pro-Roman tribes, the Catuvellauni quickly adopted Roman lifestyles and, as a result, were made very rich and powerful. One of the most famous British tribal kings, Cunobelinus, originally heralded from the Catuvellauni.

### MOST DEFENSIVE



#### 3. Durotriges

**Located:** Dorset

**Facts:** A southern tribe, the Durotriges differed from others by remaining largely in hill forts long after others had abandoned them. They were huge traders and, through numerous harbours, exchanged many goods with the Romans.

Maiden Castle, a great example of an Iron Age, multi-ditch hill fort







# The ancient Celts

## How the Iron Age revolutionised this pre-Roman civilisation

**T**he discovery of how to extract iron from its ore changed the world. As the Iron Age was born, new tools could be made for warfare, agriculture, hunting and fishing. Among the main beneficiaries of this new age were the Celts. The Iron Age in Europe lasted from 800 BCE until 43 CE and signalled a significant development of society.

Ploughs, scythes and sickles were fashioned to tend to and gather crops. Rotary querns were introduced to turn grain into flour and hunting tools became sharper and tougher. With iron, an array of swords, helmets and armour could also be fashioned. Clothing accessories developed too, with the creation of iron brooches and torcs.

The Celts lived in small farming communities, often in hill forts for protection. The houses had thatched roofs and one of the biggest settlements in Britain was Colchester, believed to be the oldest town in Britain.

If there was any negative aspect to living in the Iron Age it would definitely be their medicine. Still very primitive and led primarily by druids, one of the only surgical operations was the trepanning procedure. Headaches were believed to come from evil spirits so if you were feeling under the weather, a hole was drilled into your skull to release the demons. With the coming of the Iron Age and sharper, tougher tools, archeological evidence has shown that this gruesome practice was still popular.

It seems the Celts had an obsession with the human head. They believed the head harboured the soul and that's why, after a victorious battle, they would cut off the heads of fallen enemies and display them on their houses, both as bragging rights and as a scare technique to warn anyone who messed with them.

## A Celtic hill fort

Discover how Celtic farming communities worked

### Well

Without the technology of aqueducts, water was collected from rain or nearby springs for the hill-fort community

### Outdoor fire

Outdoor ovens were used to cook bread and meat to feed the whole fort





### Construction

A roundhouse was typically constructed from a wooden frame with a straw roof

A reconstructed roundhouse like the ones Celts lived in

### Celtic cities

Celts lived in small communities led by a chieftain and a band of warriors. There were few alliances among the different tribes and no sort of centralised state or government

### Distribution

The buildings within the fort's society served different functions and roles to ensure survival and development

### Indoor fire

The indoor fire was sometimes used for extra cooking but primarily for warmth in the harsh winter months

## Who were the Celts?

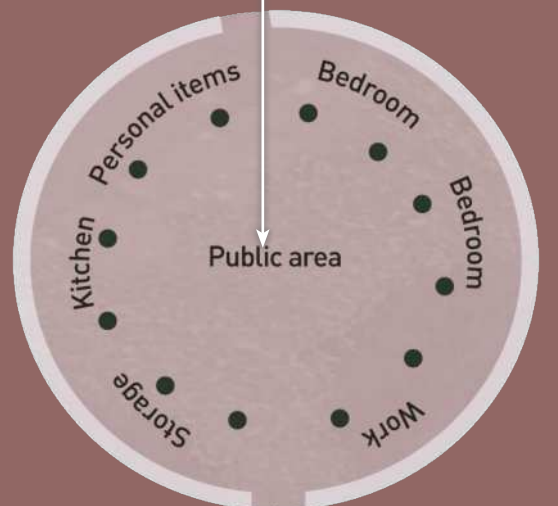
A term used for many different tribes, the Celts varied from region to region. For instance, the Gauls were based in what is now France and the Celtiberians were located in modern day Spain and Portugal. As their European influence began to come under threat from the Romans and Saxons, many migrated to Britain around 500 BCE. Despite invasions from the Romans, Angles, Saxons, Jutes and Vikings, the Celts still remained established inhabitants in many areas of Britain by the 8th century. However, their lands were now pushed back to Wales and Scotland rather than England, which was primarily Anglo-Saxon territory. Their influence can still be seen today with the uncovering of the Tal-y-Llyn hoard of Iron Age metal tools and weapons and substantial evidence of Celtic hill forts in Maiden Castle and Old Oswestry.

The remains of the Celtic hill fort at Maiden Castle



### Hill fort location

Often surrounded by a wooden or stone wall, both natural and man-made defences made the fort tricky for enemies to breach







## How the Celts fought back

The Celts had a reputation for being fearsome warriors, but the advent of the Iron Age made Celtic Britain even more resistant to overseas attack than before. The mighty Roman army took three attempts to conquer Britain and continually struggled to rule over large parts of the island, especially in Scotland and Wales. The Celts had access to the technology to make their own swords, spears and axes, as well as shields for protection. According to both Greek and Roman historians, the Celts would often go into battle without armour or even completely naked, covered only in war paint.

Although there is some evidence to suggest that they used helmets and body armour, these were apparently rare, possibly only used by chieftains and high-ranking warriors.

The Celtic military was primarily based around infantry, but they also used chariots and – occasionally – cavalry during battles. Their tactics weren't as advanced as the Roman testudo, for instance, but they still had some bold strategies up their sleeve.

The most famous is perhaps the *Furor Celtica*. Translated to 'Celtic Fury', it was a mass charge on the front of an enemy line that was used to disrupt and split enemy ranks. Celts on the continent were known to be more defensive and used a tight phalanx set-up, much like the original Greek formation.

The Celtic tribes had many iconic chieftains such as Vercingetorix, Caratacus and Cassivellaunus, but the most famous, without a doubt, was Boudicca (or Boadicea). The fierce and influential warrior queen

of the Iceni tribe, she led a resistance force against the Roman invaders. Successfully forming an alliance with various other clans around the British Isles, her forces defeated the Roman ninth legion and sacked the Roman-ruled Colchester, Londinium (London) and Verulamium (St Albans). Boudicca was finally defeated by Roman general Paulinus at the Battle of Watling Street, but the Iceni's stand proved that Roman rule was far from invincible.



## What tools and weapons did the Celts use?



### Sickles & scythes

Used to cut crops and chop wood, iron scythes and sickles made farming and building simpler and quicker.



### Ploughs

The 'ard' broke up fertile soil for crops so large communities could be fed, a big reason for the Iron Age population increase.



### Spears

The advent of iron smelting brought tougher and sharper spears. These helped in hunting large game and were also used in warfare.



### Helmets

The Celts donned two types of helmet: the Montefortino and the Coolus. The latter was the legionnaires' helmet of choice.



## There were other types of settlements

Hill forts were the most common type of settlement in Celtic Britain, but there were other types of communities too. In Scotland, for instance, brochs were very common. Stone was more readily available than wood in the north so hollow dry stone towers were built. A structure known as a crannog was also popular on the side of the lochs of Scotland.

Hill forts themselves also differed across the British Isles. Where the terrain was not hilly, a plateau or valley fort had to rely on man-made defences for protection. Others were built on river confluences for water access while others were purposely constructed on coastlines. Last of all, some forts were not built with defence as a priority so had smaller walls and enclosures.

Even the buildings themselves differed, with Britain having roundhouses while in mainland Europe, rectangular or square buildings were preferred.



The Dun Carloway broch on the Isle of Lewis, Scotland. It is one of the best preserved in the world

## On the map

■ The largest extent of Celtic lands at around 275 BCE

### British Isles

Scotland, Wales, Ireland, Cornwall, the Isle of Man and Brittany in France are known as the 'Celtic Nations' where old Celtic traditions and cultures can still be seen and heard

### Gaul and Iberia

Historians disagree over the likelihood of a Celtic presence on the Iberian Peninsula where 'Lusitanian Celts' are thought to have settled

### The Alps

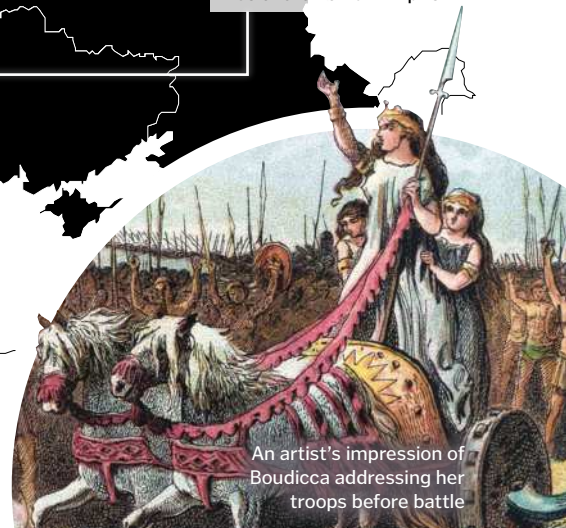
The two main Celtic cultures are believed to be from this area, the Hallstatt and the La Tène

### Place of origin

The Celts originated in an area known as 'Hallstatt' in the foothills of the Alps in modern-day Austria

### East expansion

The extent of Celtic expansion reached as far east as parts of Romania by 275 BCE before the rise of the Roman Empire



An artist's impression of Boudicca addressing her troops before battle



### Longer swords

As iron and steel production techniques gradually improved, longer, double-edged and better balanced swords became a popular weapon of choice in Celtic warfare.



### Falcata sword

A typical Celtic sword used in the Iberian Peninsula. A short sword used for quick slashes, it delivered a powerful blow and could split enemy shields and helmets.



### Armour

Known as Ceannlann, it was a mixture of linen and metal scales sewn onto chain mail armour. Nobles and rich Celts could afford this, while poor warriors wore leather armour or none at all.



### Ranged weapons

The Celtic infantry focused on close-quarters combat, but after witnessing Viking bows, they began to occasionally use slings, bows and spears for attacks from a distance.





# The Terracotta Army

Learn about China's ancient warriors for the afterlife

**T**he eighth wonder of the ancient world was discovered by accident. In 1974 in Xi'an, China, a group of farmers were digging when they uncovered a pit containing thousands of life-size warrior statues. The Terracotta Army is part of an enormous mausoleum, built to accompany the First Emperor into the afterlife.

Over 2,000 years ago, Emperor Qin (pronounced Chin) Shi Huang had united the seven warring states into the single nation of China, which gets its name from his kingdom.

The resulting peace meant there was no use for his vast army, so he set them to work building his elaborate tomb.

Much like the whole of Chinese society at the time, the Emperor was obsessed with life after death. He believed that the next world mirrored this one, so commissioned an army of life-size clay warriors to help maintain his rule. The pits were excavated and clay bases were made for each figure. All the body parts were made separately and baked

in a kiln before being joined, in an impressive early example of assembly-line construction. Once complete, each warrior was baked again at 1,000 degrees Celsius to harden the final structure. These advanced methods make that the Terracotta army is a lasting reflection of the ingenuity of early Chinese society.

## The Painted Warriors

Thousands of clay soldiers guarded the First Emperor's tomb from the 3rd century BCE

## Building an army

### 1 Gathering clay

Once the pit was dug, clay was sourced locally and pounded into bases, to which the soldiers would be attached

### 2 Making the parts

Each soldier's arms, torso, legs, hands and head were made using a variety of moulds

### 3 Assembly and sculpture

Sections were baked and combined to form the clay soldier. Individual facial features were then added

### 4 Firing the clay

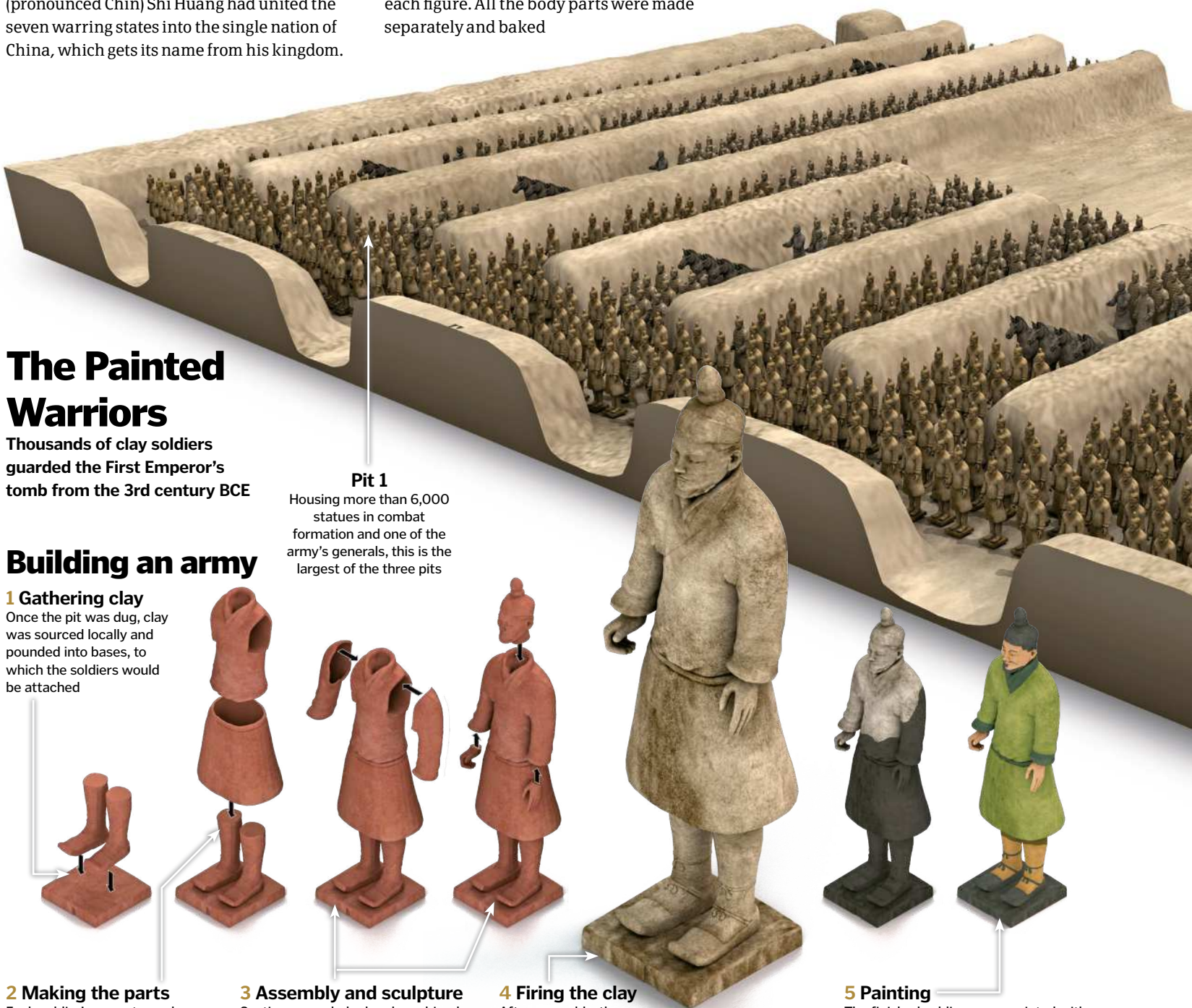
After assembly, the soldier was baked again to harden the clay

### 5 Painting

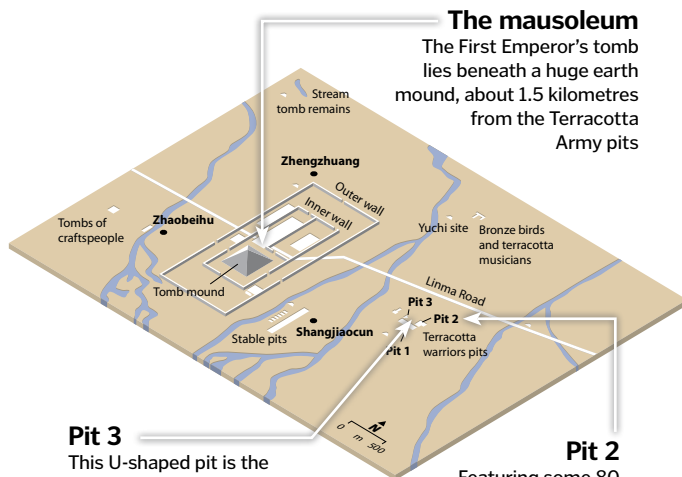
The finished soldiers were painted with bright colours. They were expensive to make and thus symbols of luxury

### Pit 1

Housing more than 6,000 statues in combat formation and one of the army's generals, this is the largest of the three pits







### The mausoleum

The First Emperor's tomb lies beneath a huge earth mound, about 1.5 kilometres from the Terracotta Army pits

### Pit 3

This U-shaped pit is the smallest, housing fewer than 100 soldiers, four horses and a chariot

### Pit 2

Featuring some 80 chariots and an array of weaponry, this pit also contains some 160 kneeling archers

### General

Only a few generals have been found, strategically positioned throughout the pit as they would be on the battlefield

### Infantrymen

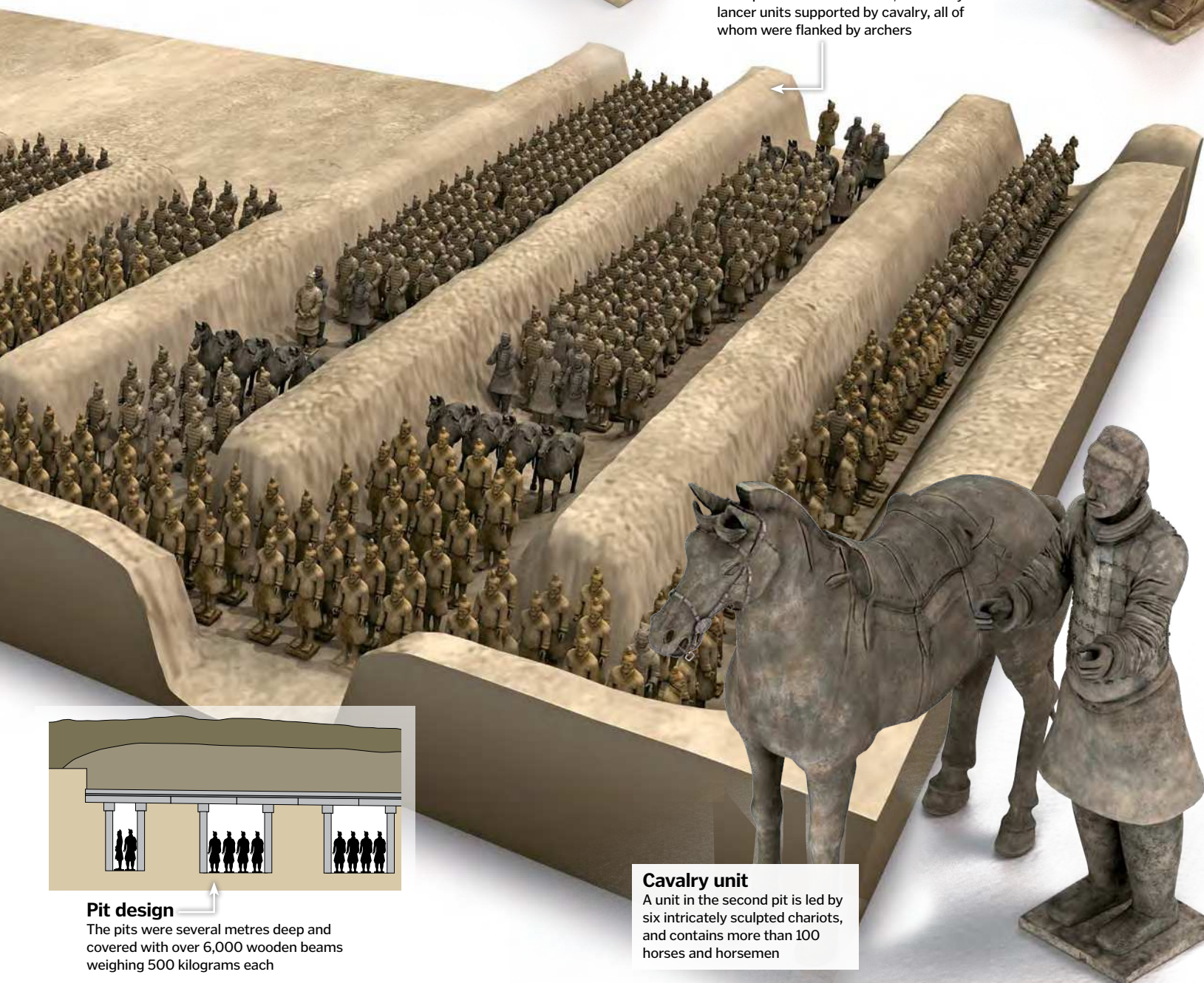
Although made of clay, the infantrymen sport real bronze weaponry, including halberds, spears, bows and crossbows

### Combat positions

The army was set out in the standard military formation of the time. The infantry were positioned at the front, backed by lancer units supported by cavalry, all of whom were flanked by archers

### Officer

These officer statues were more detailed than those representing the infantry, featuring complex armour



### Pit design

The pits were several metres deep and covered with over 6,000 wooden beams weighing 500 kilograms each

### Cavalry unit

A unit in the second pit is led by six intricately sculpted chariots, and contains more than 100 horses and horsemen