

ARCHAEOLOGY - Archaeologists

The Syllabus describes this section of the course as an introduction 'to the job of the historian'.

It requires a general study of 'historical methods' and an 'exploration of different types of sources and evidence'.

Definition of archaeology / archeology:

the scientific study of past human cultures by analysing the material remains (sites and artefacts) that people left behind.

ARCHAEOLOGY

What is it?

How does it work?

What can we learn from Archaeology?

Where have artefacts been found?

Famous archaeological site?

**What tools and techniques do archaeologists
use?**

etc.....

On August 23, 79 AD, Pompeii looked like any other busy, prosperous city. People were moving about, trading goods, news, and friendly talk.

Three days later, on August 26, all of these sounds had fallen silent, and the place itself had vanished. Almost nothing was seen of Pompeii for more than 1500 years. (Click [here](#) for a timeline of events in Pompeii) Now, more than 1900 years later, we are learning more and more about the last days of Pompeii.

What happened to Pompeii preserved a treasury of information about life in the ancient Roman Empire. You can begin your exploration of the mystery of Pompeii and the life of people in the Roman Empire by clicking on enter below. Once you see the map, you can choose any place to start, but Vesuvius might make the best beginning!

Where is Pompeii?



Images from Pompeii



'One of the unfortunate dogs of Pompeii'



Residents of Pompeii as they were found



A deserted street in the ruins of Pompeii



The ruined Forum of Pompeii



The ruins of a street in Pompeii



The Amphitheatre of Pompeii



A street in Pompeii
NOTE the stepping stones



Art and Architecture in a building in Pompeii



What is archaeology?

Archaeology is the study of artefacts.

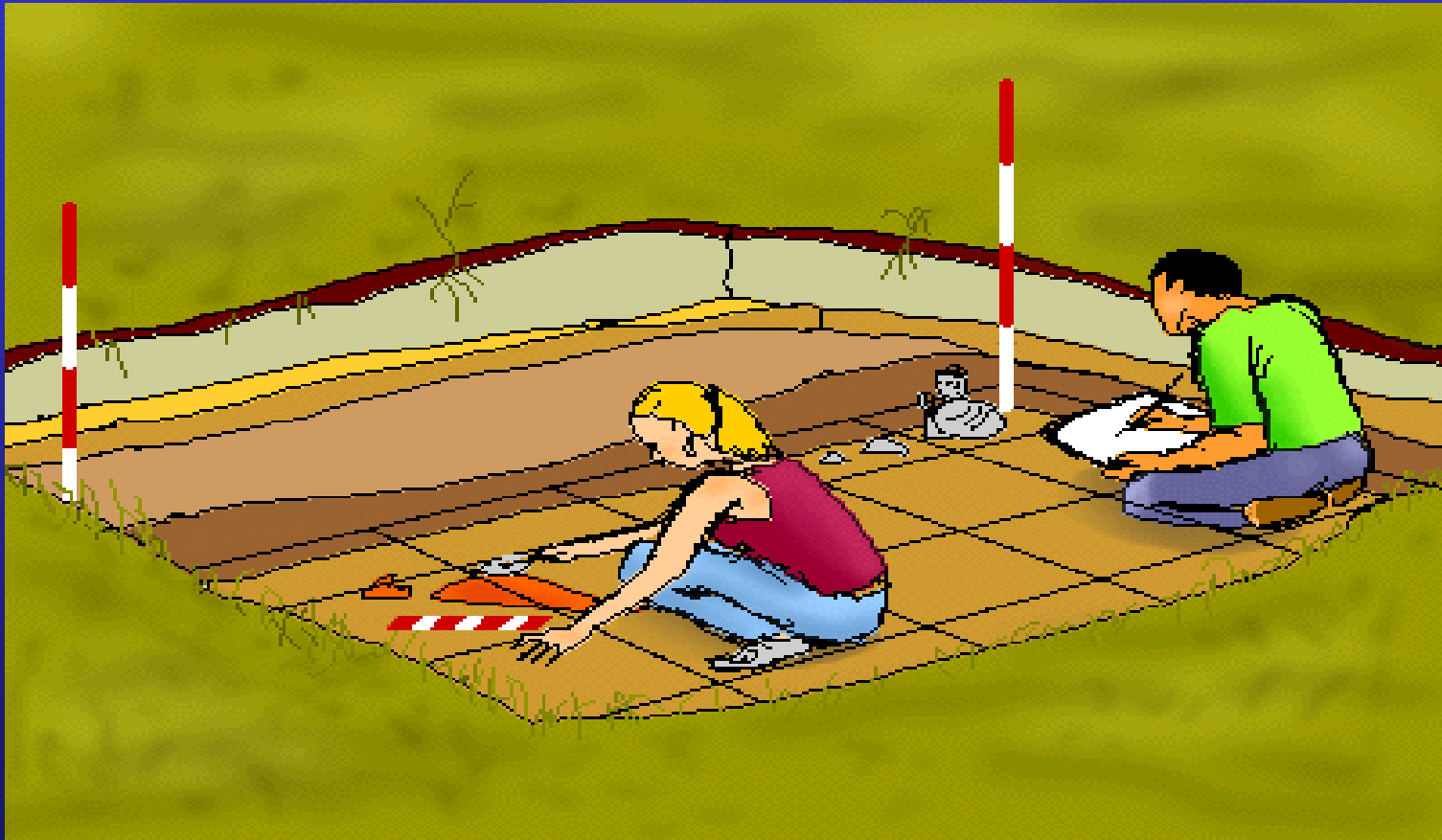
By digging up the past, you are learning history,

studying cultures and revealing truth about how

people lived in different eras and in all parts of the world

When archaeologists are investigating a site, they carefully mark it out with a grid and slowly dig down removing the soil carefully so that they don't disturb anything that is buried in it. When they find something they gently remove the soil from around it until it is free to be lifted away. They record where they found it (by drawing a diagram or taking a photograph showing where it was in relation to the grid) and then examine the object itself. Many objects need to be carefully cleaned before they can be fully identified. Some are broken and the pieces need to be painstakingly fitted together. Often only one or two pieces of an object are found and the archaeologists must work out what the rest was like based on things they've seen before.

Archaeologists at Work on a 'DIG'



The sorts of things that archaeologists find and study ranges from enormous buildings (like the Colosseum in Rome or the Theatre here in Lepcis) to small buildings (like the house in Lepcis that this web site will tell you about) to personal objects (like the glass bottle found in that house) small objects (like the ear-ring found in the house) and even tiny things (such as seeds and grape pits).

The theatre in Lepcis Magna is a typical Augustan age theatre, built in AD 1-2, and subsequently renovated by Caracalla. The *scaenae frons* (back scene) of the theatre is well preserved.



The curved rows of seats too have survived well.





Over the last three years our excavations of the insula to the west of the theatre have revealed part of a Roman house



The Roman house has an intact water supply system including this well



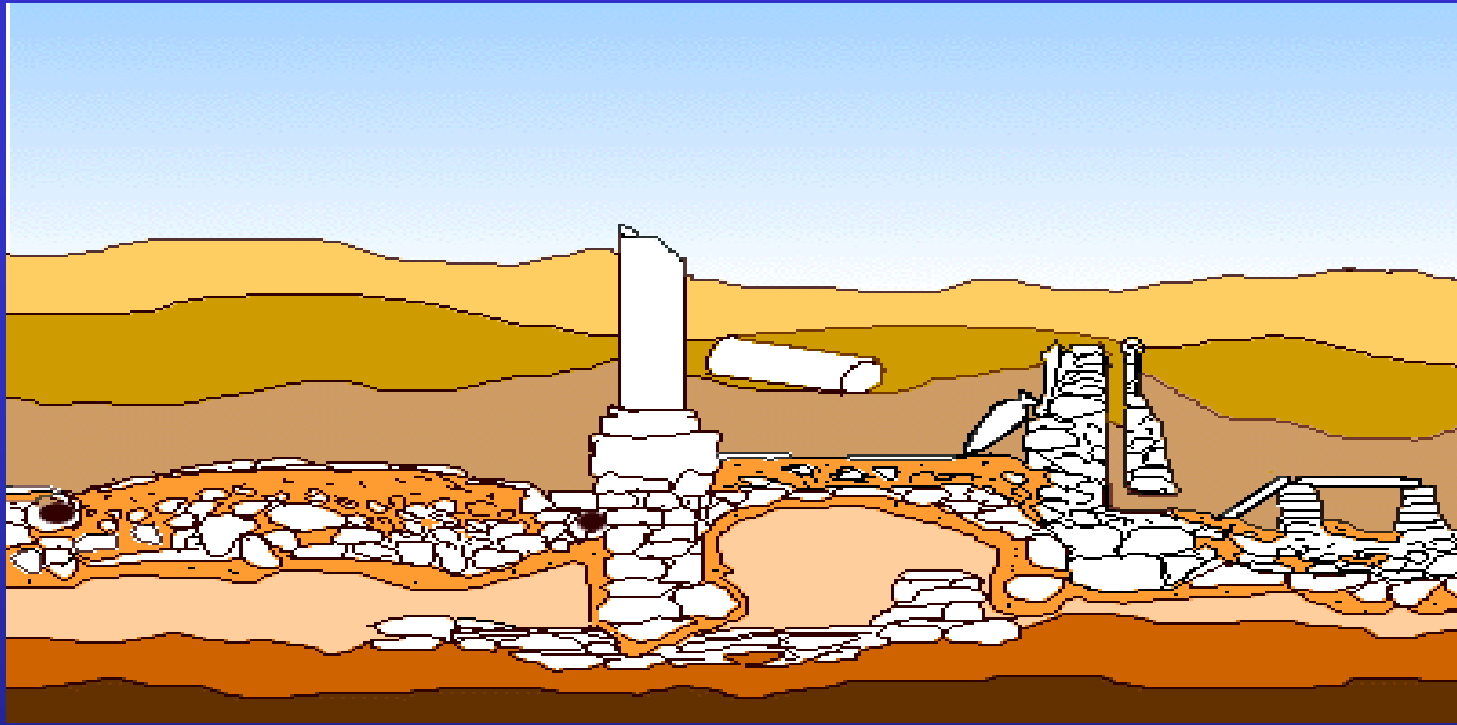
The Roman house also has two large underground cisterns.



As well as studying the objects themselves, archaeologists want to know when the objects were made or used or put in the ground. They try to work this out using a technique called stratigraphy.

If an object is buried in the ground (either deliberately or by accident) and some time later another object is buried too, the second object will, usually, be above the first object.

So if you are digging to find objects you will find newer objects before older objects. Of course sometimes people dig holes into the ground and newer objects finish up lower, and that's what makes it so difficult for the archaeologists!



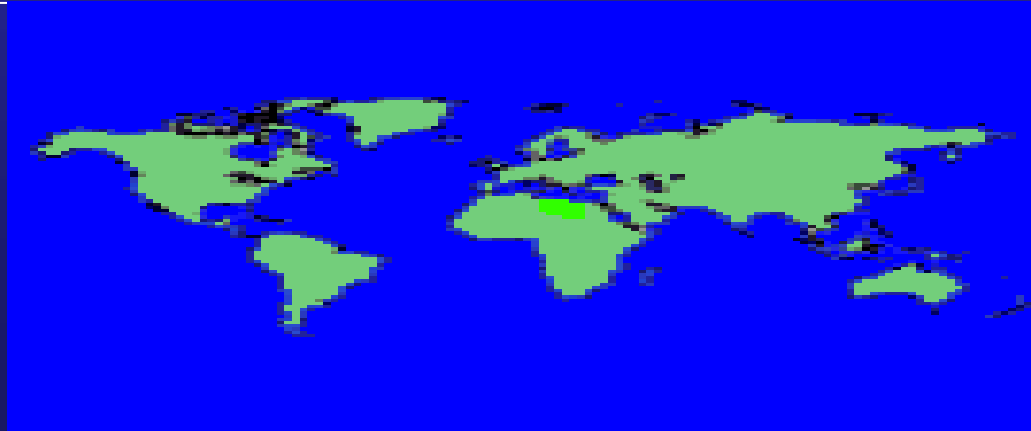
For example, in this picture of a cross-section through a site, the Phoenician remains (at the deepest levels in the middle of the picture) are obviously older than the Roman remains of walls and a hypocaust above them; but the foundations for the column in the middle have been dug into the Phoenician remains. So the archaeologists compare the type of wall and the way it was built with the other Roman buildings and Phoenician buildings to decide if it belongs with the older Phoenician remains or is an intrusion from the later Roman period (or indeed if it was originally Phoenician and re-used/rebuilt by the Romans).

If a number of different objects are found at the same level, with no evidence of intrusion from later levels, then they are likely to date from the same time.

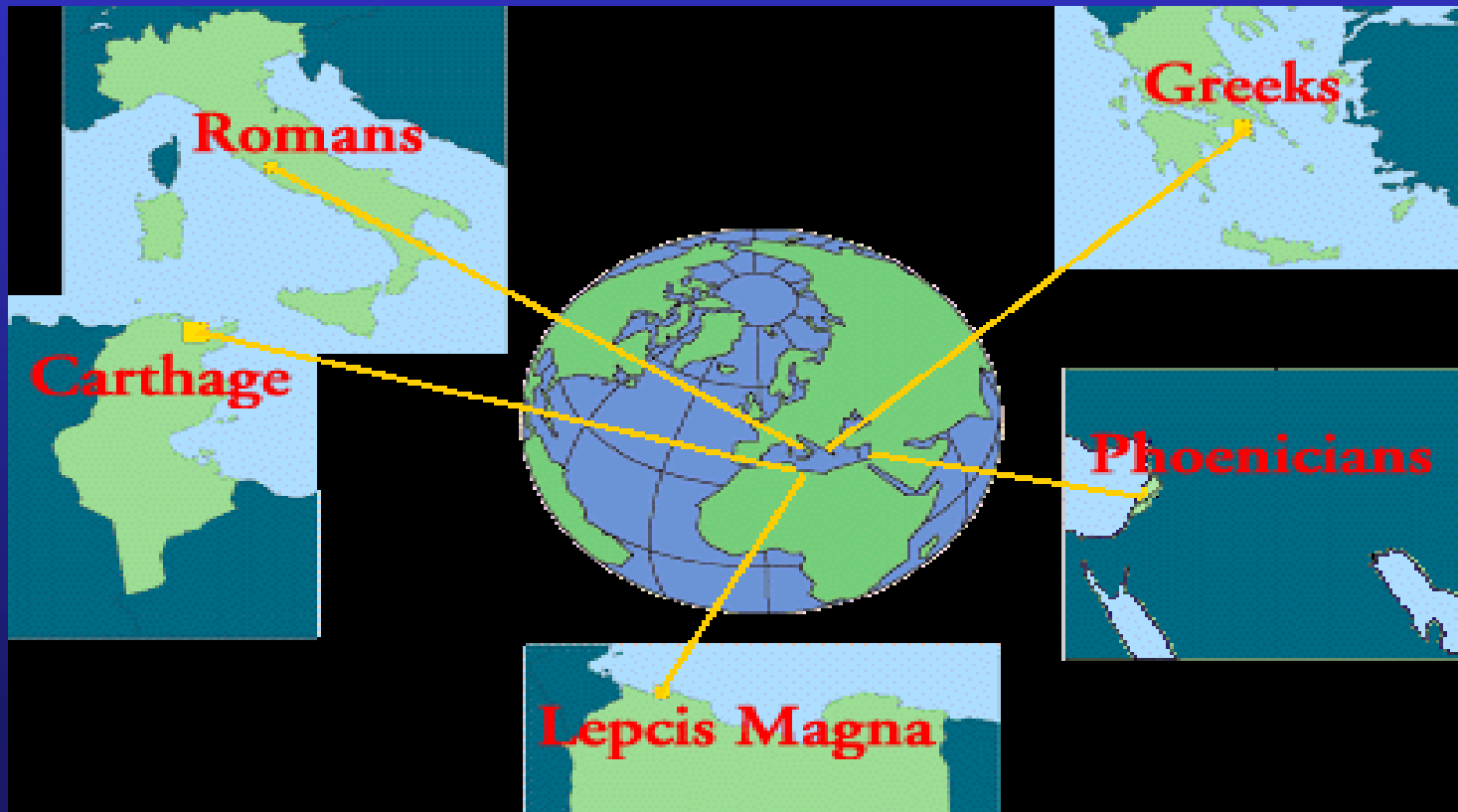
If some of them are known to come from a particular date (either because the style is the same as something found elsewhere with a known date, or because it is itself dated like a coin, or because it can be chemically analysed to estimate its age) then all of them can be treated as coming from that date too.

Originally established as a colony by the Phoenicians (from what is now Lebanon in the Middle East) Lepcis became for them a significant emporium and shelter for their ships on the Mediterranean coast of North Africa (which they had largely taken over).

After the Romans took control of the City it was to become one of the most important cities in the new Province of Africa, acting as a major port for sending various products back to Rome.



Originally founded by the Phoenicians in the 10th Century BC, Lepcis Magna attracted the attention of Spartan colonists who failed to take over, a Punic city from nearby Carthage, and eventually part of the new Roman province of Africa around 23 BC.



Originally founded by the Phoenicians 3000 years ago, Lepcis Magna became a Punic city and eventually part of the new Roman province of Africa around 2000 years ago.

It was abandoned to the desert sands 1500 years ago.

Lepcis Magna was an important site in the Roman Empire that had expanded to include the province of Africa. We know that there was a busy trade between Rome and North Africa (especially oil, grain and wild animals), and we are hoping that evidence from Lepcis Magna will help us to find out more about that trade and the effect it had on the local economy.

Also, Lepcis Magna was a thriving city for many years and hence provides much material for the archaeologists to study. By identifying the changes in local and imported goods (such as changes in style, material and manufacturing technique of ceramic pottery) over those years at Lepcis Magna, provides a sequence that can be used elsewhere in the region to help date more isolated finds.



This requires the archaeologists to be very careful and keep detailed plans of where everything is when they find it, so they can try and work out how old things are. Some things like pottery and coins can often be easily dated by their style and decoration. Other things, like rubbish or bones, can sometimes only be dated relative to other finds. _ .

For instance, if an archaeologist finds a coin while digging and then some way beneath that some bones, it is quite likely that the bones were buried before the coin, but we still don't know when.

By keeping careful records of where everything is found archaeologists can try and work out the order that things happened, and sometimes they can even work out the date of some of them.



What Tools do Archaeologists use?

- Trowels** are used to dig into the dirt to find bodies and artifacts.
- Rulers** are used to measure bones and other artifacts.
- Spoons** allow archaeologists to pick up small bones or fragments.
- Sifters** are used to help find and identify small items.
- Baggies** are used to store different artifacts or bones
- Awl** used to poke around the bones without actually breaking them.

What information do scientists get from bones?

I. Diet

Scientists examine bones of the deceased to learn whether the individual ate a proper diet. People who didn't have an adequate diet and lacked protein were not able to fight off infections. A lack of animal protein in the diet was evidence of iron deficiency.

II. Health

Certain diseases can be identified by the condition of the bones. For example, arthritis, rickets, and anemia can be determined from skeletal examination. Bones can reveal infections. This is seen by scaliness on the femur or other long bones in the leg. This was commonly found on the African-American skeletons dating back to the 1700's and 1800's.

III. Gender

It was easy to determine the skeleton of a man. The pelvis was angular with a backward tilt in the hip sockets where the top thigh bone fits into the hip bone. The females pelvis is flatter, broader and has a larger central cavity.

IV. Age

Scientists determined that the average life span for African-American males is forty-five years old as compared to thirty- nine years old for African-American females.

V. Work/Activities

It appears that early deaths resulted from hard labor and stress. One third of the bodies found were children under ten years old of age who were forced to do strenuous work.

Analysis of Artefacts and Dating Artefacts

Extracting samples of DNA from the remains of people who died hundreds of years ago enables us to trace our ancestors.

Archaeologists have taken DNA samples from the remains of Vikings who invaded Britain in the 8th and 9th centuries and, by comparing it to modern DNA, were able to determine the extent of Viking ancestry in the UK. DNA testing was also used to identify the bodies of Tsar Nicholas II and his family, who were murdered by the Bolsheviks in 1918.

Carbon Dating

Every living thing contains carbon and when it dies, this carbon starts to deteriorate.

Through radiocarbon dating, scientists are able to establish how old a person, animal or object containing organic matter is, by determining how far the carbon content has decayed.

Dendrochronology

Dendrochronology is used to measure the age of wood, by counting the number of growth rings.

By understanding how rates of growth differ in various climates and conditions, experts can determine the age of the wood and when it was felled.

Assuming the tree was used almost immediately for the construction of a house or boat, for example, experts can determine when it was built.

How do Archaeologists know where to look for Artefacts?

Aerial archaeology offers a bird's eye view, often highlighting formations like the outlines of burial mounds, ancient walls and roads, which are invisible at ground level.

Remote sensing gives archaeologists the chance to examine sites before excavation even begins:

Geophysics is a new and exciting way of seeing what lies beneath the ground; magnetometry and resistivity are used to scan and plot buried walls, ditches and trenches.

This gives archaeologists a guide for where to start digging and can uncover sites of interest that are not visible to the naked eye.

Combining the knowledge obtained from written texts with archaeological finds can solve mysteries and confound established theories.

Recent studies in Egypt have uncovered evidence that the plague, or Black Death, may have originated here over 3,000 years ago and not in Asia, as previously thought.

Medical texts from this period describe plague-like symptoms and archaeologists have recently found evidence of plague carrying fleas that infested the ancient Egyptians' domestic animals.

Modern Technology and Archaeology

As the technology available to archaeologists improves, our understanding of the past becomes clearer.

Using modern techniques, experts are now able to determine the nature and age of artefacts with greater accuracy.

Artefacts, buildings and even whole villages have been recreated to give us an insight into what it was like to live hundreds, or even thousands, of years ago.

With the help of skull reconstructions and 3D computer imagery, we can even look into the faces of our ancestors.

Wood Quay, Dublin – One of the most famous Archaeological Sites in Ireland

Wood Quay is a riverside area of Dublin and probably the most famous and controversial archeological "dig" in Ireland. Wood Quay was the name given to a wooden quay placed at the river's edge, directly alongside the City Wall. It was one of the most important sites of Viking settlement in the city and when excavated, many valuable and instructive finds were made. The finds are on display in the National Museum of Ireland. Dublin Corporation got hold of the site some time between 1950 and 1975 and announced it as the location of their new offices. The site is now largely covered by Dublin Corporation's modern Civic Offices complex.

Questions

- 1 What is archaeology?**
- 2 What is a Primary Source and name three (3) types of Primary Sources?**
- 3 Make a list of the steps or jobs that need to be done on the site of a 'dig' by archaeologists?**
- 4 How does an archaeologist know where to look for artefacts?**
- 5 List and explain two (2) methods used by archaeologists to date artefacts?**



Newgrange Passage Tomb – Boyne Valley – Co. Meath

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