

The Archaeologist

Chapter 2

Term	Definition
Aerial photograph	A photograph taken of the ground from an elevated position eg helicopter
Archaeologist	Someone who investigates places and objects left by people in the past, including the time before written records were kept.
Archaeology	The study of the past, based on material remains.
Conservation	When historic objects are protected and preserved so that they do not decay
Dendrochronology	Dating objects by examining three rings on pieces of wood.
Excavation	A site where archaeologists dig the ground in search of objects.
Geophysical Survey	A survey of what's underneath the ground, like an x-ray of the ground
Pollen Analysis	The studying of pollen remains to tell archaeologists what was growing during the time period
Prehistory	The story of the past before written sources
Radio-Carbon Dating	Dating plant and animal remains by measuring the amount of carbon-14 they contain.
Stratigraphy	Dating objects by examining layers of soil.
Survey	The examination and recording of an area and its features.



1.6 DEBATE the usefulness and limitations of different types of primary and secondary sources of historical evidence, such as written, visual, aural, oral and tactile evidence; and **APPRECIATE** the contribution of archaeology and new technology to historical enquiry.

The role of an Archaeologist
Archaeology is essential to our understanding of history, particularly when studying prehistory and tactile sources. Archaeological sites can be found in various ways but once discovered and chosen for excavation, archaeologists: <ol style="list-style-type: none">1. Carry out a survey to see if the site is worth excavating.2. Dig test trenches; a sample hole dug to see if there is anything of interest present and judge if it is worth excavating the whole site.3. Remove the topsoil (the topmost, most recent layer of soil) using a digger or pick axe.4. Dig very carefully to make sure they do not damage anything, using trowels and shovels for smaller amounts of soil.5. Use brushes to remove soil delicately from any objects found.6. Use sieves to ensure nothing is thrown away in the soil.7. Record the position of every artefact found - everything is carefully drawn and photographed.8. Catalogue the details of each artefact on computers and in the excavation's site book.9. Put the artefacts into separate, labelled bags and then boxes which are numbered and sent to laboratories for tests.10. Once the tests are finished, artefacts are usually brought to museums where they can be displayed for people to learn from.

Radio-Carbon Dating	Geophysical Surveying	Pollen Analysis
Radio-Carbon Dating is when the level of carbon-14 testing in the once-living tissue of humans, animals and plants is tested to investigate its age. The older the tissue, the less carbon-14 it contains - how little can tell us how old. Using radio-carbon dating, archaeologists were able to investigate Mount Sandal, Co. Derry where they found evidence that can be dated back to 7,000 BC - meaning Mount Sandel is between 9,000 and 10,000 years old!	A geophysical survey is like an x-ray of the ground, creating maps and images of underground evidence without excavation. Geophysical surveys can locate artefacts, as well as ruined buildings and structures. This method was used recently to investigate Newgrange , Ireland's most famous passage tomb at Brú na Bóinne, Co. Meath. The aim of the geophysical survey was to see whether there were any hidden passageways or chambers - but none were discovered.	Pollen analysis is the study of pollen remains to find out what was growing at a site during a particular time period. Archaeologists have records of when certain pollens were common so that they can match the pollens to the correct period when excavating. Pollen analysis can be used to date objects. This method was used to investigate the Céide Fields, Co. Mayo which showed a dramatic drop in tree pollens, proving that pine forest areas were cleared to create fields for farming. The blanket bog which grew over the fields preserved the site, leaving it in excellent condition for archaeologists to study it, finding it to be around 4,000-3,000 years old.

Stratigraphy	Dendrochronology	Pollen Analysis
Stratigraphy is used to date artefacts and evidence by how deep in the ground they were when found; the deeper they are, the older they will be. If you were to drop something today, it would lie on the surface. But over thousands of years, it would become covered by soil, leaves and other matter. Eventually, it would end up buried many meters deep. The method is used in most archaeological excavations.	Dendrochronology , also called tree-ring dating , is a method of dating that uses the unique growth patterns of tree rings as a guide. If you cut through a tree trunk, you will see rings spreading from the centre outwards. Each ring is a year of growth. The rings are wide when the tree grew fast, for example when the summer was good. Archaeologists have created a continuous record of tree ring patterns dating back to 5,300 BC.	DNA Testing can tell us about the origins and ethnicity of a person. 3D Reconstruction using computer modelling allows archaeologists to reconstruct a face based on the skull in order to see what a person looked like. Examining bones can teach archaeologists a lot about a person's sex, age, height and diet. A combination of these methods was used to investigate the Clonycavan Man which archaeologists believe to be 2,300 years old (Iron Age) after his body was discovered in a peat bog in 2003. Archaeologists think he may once have been a king and was ritually sacrificed. It was estimated that he was aged between 24 and 40 when he died.

The contribution of archaeology
Archaeology provides a hands-on link to the past, enhanced by new technologies like ground-penetrating radar and radiocarbon dating. These tools not only help identify and date artefacts precisely but also enrich students' understanding of the methodologies behind historical enquiry. Simply put, archaeologists are a bit like detectives, rooting around in the ground to stitch together a story from yesteryear. Their work is essential for filling in the blanks in what we know about history, especially when there are no written records to go by. For Junior Cycle History, getting your head around what archaeology contributes can help you see that there's more than one way to learn about the past. Here's the lowdown: <ol style="list-style-type: none">1. Finding Lost Civilisations: Archaeology can let us in on whole societies we never even knew were there.2. Everyday Life: Unlike the history books that are all about the high kings and battles, archaeology tells us how your average Joe or Josephine lived.3. Understanding Culture: Looking at bits and bobs like old pots, tools, or even religious stuff gives us a fair idea of what people believed and how they went about their lives.4. Techy Stuff: Having a nose at ancient tools and machinery shows us how technology has come along over time.5. Checking the Facts: Sometimes what you dig up can either back up or call into question what's written down in history.6. The Environment: Archaeology isn't just about people; it can also tell us what the weather was like back in the day and how the Earth has changed over the donkey's years.7. Skirmishes and Deals: Clues about wars, trading, or pacts between different groups can come to light through digging and sifting.8. The Big Questions: Archaeology can get you thinking about the right and wrongs of it all—like who gets to say what history is and how it should be shown to the world.