ARCHAEOLOGY

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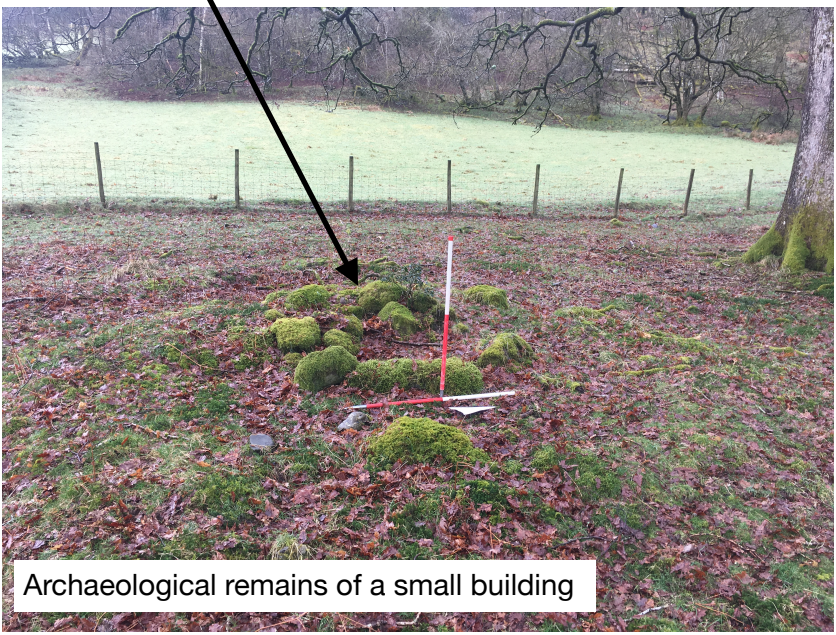
What is archaeology?

Archaeology is a way to study the human past by looking at the things people have left behind, and the effects they have had on the landscape.

Over long periods of time things that people have abandoned or discarded can become buried. These collapsed buildings and structures end up being lumps and bumps or piles of stones that archaeologists search for.



Archaeological remains of a small building

Buried evidence, including foundations of buildings, pottery and metal, is found by **excavation**, digging into the ground in a **trench**.

An archaeological excavation

Historians also look at the past, but using written documents like diaries, wills and charters. Writing has only been around for about 5000 years, and people evolved about 4 million years ago. Most of the human past can therefore only be studied by archaeology – the time before written records is called **Prehistory.**

Archaeologists and historians work together – documents may be available to tell an archaeologist what an excavated structure is, or something about the people who created or used it. Similarly, historians may find references to a structure which is no longer visible, and

archaeological excavation can prove whether a documentary reference is correct.

How is a site chosen?

- Because the ground is about to be disturbed by construction of buildings or a road
- Following accidental discoveries, perhaps by farming activity or field walking, which suggest that there is something important below ground
- Because there are lumps and bumps on the ground (**features**) which do not appear to be natural
- When a known historical site is in danger of being lost due to processes such as coastal erosion (**rescue archaeology**)
- Following non-invasive detection of features using modern technologies (such as **geophysics**) that can detect things like walls and ditches below the surface of the ground.
- When there are specific questions that archaeologists need answers to, and the only way to get that information is through excavation.

DIGGING

The place where an archaeological excavation is taking place is called a **site**. The site includes the areas of trenches, but also the wider area, where there may be tents for shelter, cabins for storage and even loos and car parking.

The trenches are measured out with tapes and marked on the ground using pegs and string. All corners must be 90 degrees, and edges must be straight!

And then the digging starts

Any grass or vegetation is removed (**deturfing**), followed by the thin top covering of soil (**topsoil**). If a large area has to be deturfed this may be done with a mechanical digger. The archaeology may be seen a few centimetres beneath the surface, or it may be much deeper.

Excavation is always very methodical, and archaeologists dig in different ways depending on the sort of archaeology being exposed. We will dig around any **features**, such as walls, ditches and buildings so that

we can see the site as it once was. The site may soon become an irregular patchwork of features.

Every feature has to be recorded as it is dug. Every single feature and soil layer that looks different to its neighbours is given a number, this is to keep track of what layers we have already dug and so we know where individual finds came from. These different features and layers are called **contexts.** A different context might be indicated by a change in soil colour or a number of stones it contains. Or it might be a wall, or a ditch, or a floor. Some contexts, such as a floor surface or the fill of a ditch, might be removed and put into large bags to be looked at by **specialists**. Archaeological laboratories sieve the soil and find tiny grains or bits of plant that can tell us what the environment was like at the time the layer was in use or what the feature was used for.

Different contexts

FINDS

As soil is removed, objects are uncovered which have been lost or buried. Those in the topsoil will be more recent than those in deeper layers and might have been moved around by ploughing. Because finds are all made in different ways or look different, they can tell us what time period they come from. it is important that a careful record is made of the context in which they were found because they can tell us how old that context is. Finds are put in trays marked with the context number. Finds that can give us important information, such as coins, are often put in separate bags.

Pottery

What is a find?

- Pottery
- Glass
- Metalwork, including nails, coins
- Worked flints and other stone
- Charcoal
- Animal bone
- In fact anything that would not naturally be found in that place. If in doubt keep it anyway!

A beehive quern stone (above) and a bead (right)

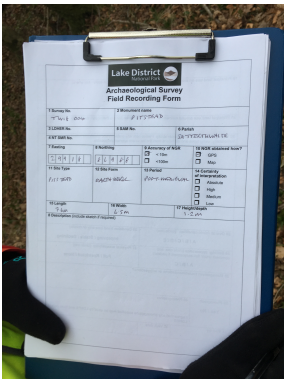
WHEN TO STOP!

Eventually we will dig so deep that we have found everything that has been used by humans in the past and have reached soil that has never been disturbed, this is often called the ‘natural’. Sometimes all of the information required will have been gained before getting this far, and the digging will stop sooner.

RECORDING

This is the most important part of the investigation. Remember that when you dig into a site you are destroying what was there in order to find out more about it. This means you must record everything really carefully, before it is removed forever.

Recording takes place at many stages of the dig, and a context is always cleaned up and recorded before it is removed to see what is underneath. Usually, recording will take the form of photography, accurate scale drawings, and sometimes aerial or drone photos. A written record will also be made of soil type, colours, number of stones, finds, samples, what contexts are next to it and most importantly what the archaeologist thinks is going on in this layer.



So that everything can be related to everything else, all of the drawings and photographs must also be carefully labelled, recorded and cross referenced. This helps us remember everything once we've finished digging and have to write a report about what we've done!

THE END OF THE DIG

At the end of most digs, the trench will be backfilled and the grass replaced. The aim is to leave the site looking as near as possible to how it was before the dig started. Occasionally a site will be left open, for further work or for **consolidation** so that people can come and see the archaeology.

Earthworks that indicate archaeology in a field

AND AFTER THE DIG?

The stage after the dig is called **post-excavation**: all the finds will be cleaned and analysed. Metalwork might have to be **conserved** to stop it deteriorating. Soil samples will be examined for fragments of organic matter. Specialists will be asked to look at bone, pottery, and other finds.

An important part of the post-excavation stage is dating the finds. Coins are good for this, but some types of pottery were only made for a short time, or styles of metalwork might be quite specific to a time period. Dating of a find enables dating of the context in which it was found.

Roman pottery with a makers stamp

Organic fragments, such as bone or plant remains from soil samples, can be **radiocarbon dated**. This is a laboratory technique that looks at changes in chemical composition of natural materials over time. Bone and plant remains can also tell us about what people were eating, what plants they were growing and how they were managing the landscape!

When all of the analysis is complete, a report will be written which will explain everything that was done from the beginning to the end of the dig. As far as is possible, the site will be explained, and dated and another little bit of knowledge will have been added to our history.