



# Dating

When archaeologists date materials, they are trying to find out how old an object is. The object could be a piece of wood, bone or pottery. For example, the date stones were placed on top of each other to form a wall cannot be accurately identified (the stones will be millions of years old). However an artefact found next to the stones, for example, a piece of pottery (a sherd) can be dated. From this date, the archaeologists can say that it is likely the wall was made around that time.



*The Grand Canyon in America is a good example of relative dating. The layers of rock at the bottom of the canyon are older than the layers at the top.*

## Relative Dating

Sometimes archaeologists can't give the exact age of an artefact, so there are ways they can get a rough age of an object. This is called **relative dating**. One example of how this is done, is by digging through layers of ground, and placing the objects we come across in date order. Usually, unless tree roots or animals move the objects underground, the oldest objects are in the bottom layer, and the newest ones are in the top layer.

Another way of relative dating is placing objects (like decorative pots) in age order, using their material, shape and decoration as clues of how old they might be.

## Treerings

Archaeologists can sometimes get the exact age of an object by using other methods. This is known as absolute dating. If we wanted to know the age of a tree, we would look inside the tree to see how many rings it has. Trees gain a new ring every year (unless there has been lots of rain – when it might develop more rings). Some oak trees in Germany have been dated at around 9500 years old by counting the rings!



## Radioactivity!

Another way archaeologists can get the age of an object using absolute dating, is by using a fairly new method called **radiocarbon dating**. This was first used in 1949 and was a groundbreaking moment in archaeology. We can measure the amount of a special radiation in organic remains and use that to estimate how old it is.

