

Rot and Rust

When archaeologists are digging, they hope to find evidence from the past. Unfortunately, not everything survives so archaeologists never have a complete picture of how people lived in the past.

Objects also don't look the same as they would have done in the past as they generally rot or decay over time.

How well the objects have survived often depends on the **materials** the objects are made of.

Organic materials are materials that were **once alive**, such as **materials from animals** like leather, fur or wool or **materials from plants** such as wood, linen or paper.

Human and animal remains are also organic matter, but **bones and teeth are partly inorganic**, so these can survive if the soil is not too acidic.

Organic materials are affected by **humidity** and **air**.

They usually decay quite quickly unless they are preserved in special conditions such as very dry desert or very wet ground such as peat bogs or marshland.

Inorganic materials are materials that were **never living** such as metal, glass, pottery and stone.



Inorganic materials generally survive better than organic materials at most sites although metals can rust or tarnish and pottery or glass break down or erode.




How well metalwork survives can depend on the type of metal. **Different metals decay at different rates.**

Iron decays the most and becomes highly corroded. The original smooth surface no longer survives which is why it is bumpy.

- Copper alloy** (copper mixed with other metals) changes from a brass colour to green because of chemical reactions.
- Silver** can turn black, white or purple.
- Gold** survives best as it does not corrode at all. It comes out of the ground looking exactly as it did when it went into the ground.
- Inorganic** materials survive quite well if they are buried where there is little air.

Look at the replica Roman objects below. What materials do you think they are made of? Tick the boxes that match.

Object	Leather	Metal	Wood	Pottery	Stone
					
					

Object	Leather	Metal	Wood	Pottery	Stone
					
					
					

Archaeologists have found objects like these from Roman times at Segedunum and Arbeia Forts.

They were not buried in ground that was very wet or dry, so **organic materials have rotted away**, but some of the **inorganic materials have survived**.

What do you think would be left of each of these objects if they had been buried 2,000 years ago?



Iron hobnails

Roman boots were made of leather. The 'hobnails' on the bottom were made of iron, a kind of metal. The softer, **organic** leather parts of the boots usually rot away, unless they are buried in very wet or very dry ground. The **inorganic** metal hobnails often do last although the metal looks rusty and corroded.



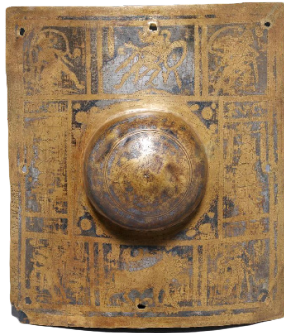
Spear heads

Spears had wooden handles and iron (metal) tips. The **organic** wooden handle usually doesn't survive as the wood rots away. The **inorganic** metal tip is more likely to survive, although it may look broken, corroded or rusty.



Brooch

Brooches were made of different kinds of metal. Since metal is a strong **inorganic** material, brooches often survive. On this brooch the thin pin at the back is missing. Brooches can sometimes look damaged, corroded or rusty. Some metals, such as gold, survive particularly well.



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Shield boss

Shields were made of wood but had a raised metal part in the centre called the 'boss'. The **organic** wood usually rots away, but sometimes the **inorganic** metal bosses are found. The shield boss found near Arbeia Fort in South Shields (now in the British Museum) is still mainly brass coloured as it was found in the river.



Pottery sherds

Bowls made of **inorganic** clay pottery often do survive, especially if they were well made and fired at a high temperature. Sometimes if the pottery was fired at a lower temperature it can be crumbly and brittle. Pottery is usually found in pieces. Roman pottery was not glazed like ours and was likely to be thrown away after a few years. As rubbish, it would quickly end up broken and scattered around. Only pots that were deliberately buried are likely to survive in one piece.

Have a look around your home or classroom. Can you find some organic and inorganic materials?

Which objects do you think might survive if an archaeologist found them in 2,000 years time?

What clues would this give them about your life?

What wouldn't survive?

Might this give any misleading ideas about how you live?