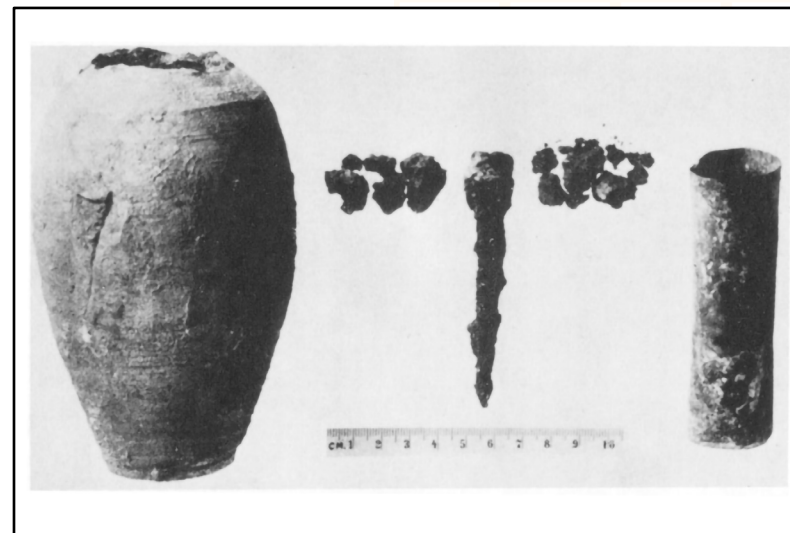




Was the Baghdad battery really two cells?

Slide by Neil Goalby. Available from rsc.li/4tDO08M

A new study of a 2000 year-old artefact known as the Baghdad battery suggests it was not just a single electrochemical cell. Although the artefact was found in fragments, it seems to have consisted of a clay jar containing a sealed copper vessel surrounding an iron rod. The clay jar may have acted as a porous separator between an alkaline electrolyte and the ambient air. This design could have meant the outer cell and inner cell created by the copper and iron were connected in electrical series, creating a battery that produced 1.4 volts.



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Researchers have suggested that the iron and copper in the jar would have acted as electrodes, with an acidic liquid stored inside acting as the electrolyte

Questions

1. How is a battery made from electrochemical cells?
2. Suggest how the copper and iron vessel acted as a cell.
3. Suggest why there is uncertainty about whether the artefact was a battery.