



Ancient Culture, Modern Science



As an experiment, some of our SciBar participants prepared this glossary, independently of Dr Ryan Metcalfe. You may find it informative to consider these concepts and visit the websites. Your comments on this experiment are most welcome.

<p>Canopic jars These are ancient jars, holding the internal organs (but not the heart) that were removed during mummification.</p> <p>CT scan (CAT scan) This works by using X-rays to create a 3-dimensional image of part of the body.</p> <p>DNA The full name is deoxyribose nucleic acid. It is the molecule that encodes genetic information.</p> <p>DNA testing Is a technique for analysing mummy samples to find out, for example if two people are related or, for example, if teeth found in a box belong to a mummy.</p> <p>Endoscopy This technique is used to look inside or obtain tissue sample from inside a mummy, by inserting a thin lighted tube into the nose or, perhaps, an embalming cut.</p> <p>Histology This entails making thin sections of soft tissue that can be examined by a microscope.</p> <p>Immunological analysis By detecting ‘antigens’ in mummified tissue, researchers can confirm if the person had an infection when they died.</p> <p>Mass spectrometry This chemical analysis technique is used to identify substances, for example, that may have been used as narcotics or pharmaceuticals, or the type of resin.</p> <p>Mummify Originally, it was noticed that a natural preservation of the body can be caused by a hot, dry climate and sand-filled graves. Later, an artificial process was used by the Ancient Egyptians to preserve the body so that, as they believed, it could fully take part in the afterlife.</p>	<p>Myrrh This is a valuable, naturally occurring resin. It was used to wipe out the body cavity as it has antibacterial properties.</p> <p>Natron This is a salt-like substance used in mummification to dry out the body.</p> <p>Nekht-Ankh This is a mummy from the ‘‘Tomb of the Two Brothers’’. It was the first to be subjected to a scientific unwrapping, at Manchester in 1908.</p> <p>Non-destructive technique This is any imaging or analysis technique that allows, for example, tumours to be identified without unwrapping the mummy.</p> <p>Palaeopathology Certain medical conditions, such as tuberculosis and leprosy, leave markers on bones which can be identified. Similarly, palaeo-odontology studies ancient teeth.</p> <p>Raman spectroscopy This is a chemical analysis technique that can help identify the materials used in the construction of an object, or those used in decorating the surface, including skin. Only very tiny amounts of sample are needed.</p> <p>Resin This is one of a number of tar-like substances from trees, used as a varnish to ‘paint’ the body, or poured over it, to seal all openings.</p> <p>Schistosomiasis This is a parasitic disease; also called bilharzia. Manchester researchers have contributed to studies of the evolution of the disease over a 5000 year period, from the remains of parasite DNA in mummies.</p>
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Useful web links: <http://www.knhcentre.manchester.ac.uk/> www.childrensuniversity.manchester.ac.uk/interactives/history/egypt/
<http://www.telegraph.co.uk/science/science-news/3293164/How-Imhotep-gave-us-medicine.html>