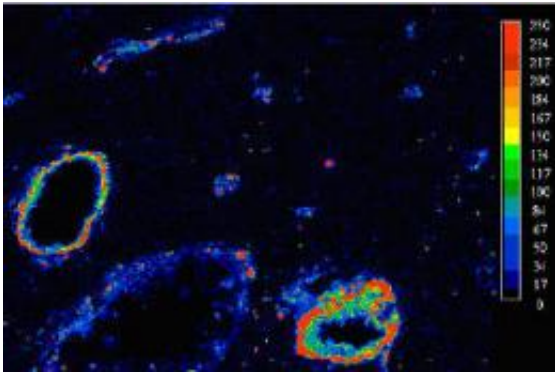


Mummified dinosaur skin yields up new secrets

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Microprobe image of silicon distribution in a tendon from Dakota.

(PhysOrg.com) -- Scientists from The University of Manchester have identified preserved organic molecules in the skin of a dinosaur that died around 66-million years ago.

The well-preserved [fossil](#) of the plant-eating hadrosaur - known as 'Dakota' - has been analysed by researchers writing in the journal *Proceedings of the Royal Society B*.

The team report how the fossil's soft tissues were spared from decay by fine sediments that formed a mineral cast.

A wide range of tests have shown that the fossil still holds cell-like structures, although the constituent proteins have decayed.

Advanced imaging and chemical techniques have revealed that the mummified duckbilled dinosaur had two layers of skin - just like the skin of modern birds and reptiles, which scientists believe are closely related to duckbilled [dinosaurs](#).

They believe the hippo-sized Dakota fell into a watery grave, with little oxygen present to speed along the decay process. Meanwhile, very fine sediments reacted with the soft tissues of the animal, forming a kind of cement.

As a result, the 66 million-year-old fossil still retains some of the organic matter of the original dinosaur, mixed in with the minerals.

"You're looking at cell-like structures; you slice through this and you're looking at the [cell structure](#) of dinosaur [skin](#)," said Dr Phil Manning, Senior Lecturer in Palaeontology & Research Fellow School of Earth, Atmospheric & Environmental Sciences (SEAES). "That is absolutely gobsmacking."

Provided by University of Liverpool ([news](#) : [web](#))

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