

## X-ray microtomography (XMT) of fossil brachiopod shell interiors for taxonomy

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The ability to see and understand the three-dimensional structure of an investigated object plays a key role in studying fossil remains. All living organisms are formed in three-dimensions, but unfortunately fossilization processes often reduce overall shape, making it difficult to gather information about real overall appearance, functionality, and inner structure. Here, using a specimen of the brachiopod *Terebratula terebratula* we demonstrate a non-destructive technique for exploring the 3-D internal structure of fossil remains. The use of tomography allows the construction of a set of transverse serial sections in the manner used by brachiopod researchers for decades.

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