

Deep time in the Murchison region, Western Australia is published by the Geological Survey of Western Australia in the Geology Explorer series.

The Murchison landscape in Western Australia is wide, brown and sparsely vegetated. Millions of years of deep weathering has produced a thick blanket of sun-bleached soil. Tangible relics of deep time are accessible where the bedrock pokes through the surface as bouldery outcrops or whaleback ridges. However, much of the story must be interpreted using geophysical tools and by piecing together evidence from many sources.

Using interactive maps, photos, video, timelines and richly coloured imagery, this virtual tour traces a vital thread in Western Australia's early geological history between about 4.0 and 2.5 billion years ago. It explores the variety of rocks, their characteristic landscapes, and the sequence in which they were assembled to form the northern part of the stable Yilgarn continental crust.



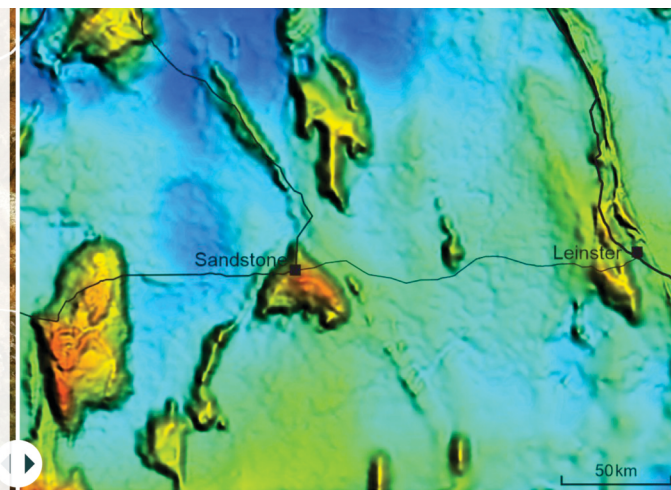
Murchison region in Western Australia



Visualizing the deep structure

Millions of years of weathering has produced a mostly flat landscape with only scattered outcrops of fresh rock at the surface and few obvious clues to what lies underneath. To discover this, we need indirect methods that allow the deeper rocks to be visualized.

Greenstone belts are especially well imaged using maps of subtle gravity or magnetic anomalies. Greenstones, and other dense rocks with distinctive magnetic signatures, stand out as 'highs' in contrast to the less-dense, generally less magnetic, granitic



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Free (online): <https://storymaps.arcgis.com/stories/8214db0ad8b14e38bf65349fa0b91813>



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