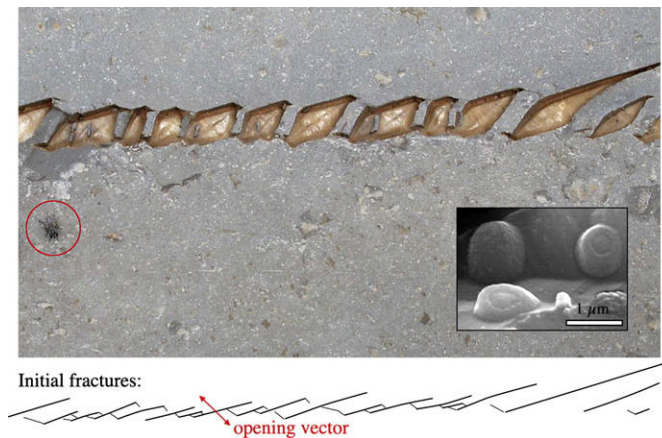


## Photograph of the Month: Antitaxial fibrous calcite vein, Arkaroola, South Australia



Photograph Paul Bons. ©Paul Bons.

Antitaxial fibrous veins are known for their commonly incredibly delicate internal structures of curved fibres that commonly track the opening trajectory. Many such antitaxial fibrous calcite veins are found in the Neoproterozoic Tapley Hill Formation, where it is exposed in Oppaminda Creek (also known as Kingsmill Creek) on Arkaroola Wilderness Sanctuary, Northern Flinders Ranges, South Australia (Bons and Montenari, 2005). The thinly laminated slates here are virtually undeformed, only tilted about  $20^\circ$ , which assured that the veins were preserved undisturbed. The photograph shows a set of en-échelon veins. Reconstruction shows that these started as en-échelon fractures (drawing below). Subsequent oblique growth (red arrow) of the antitaxial calcite fibres caused rotation of the “bridges” between the individual veins. An interesting additional feature of these circa 585 Ma veins (Elburg et al., 2002) is that they contain micron-sized biomorph objects (inset) that are interpreted as fossilised microbes that lived in the veins at a depth of 3–6 km and were entombed in the growing calcite fibres (Bons et al., 2008). Fly for scale (red circle) is 9 mm. SEM image by Jens Rößiger.

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11 October 2008  
 Available online 5 May 2009