



**M**icroscopes are a window on another world: a world that's all around us yet out of reach of our senses, unaided at least. Paul Rigby traces his fascination with this deeper layer of reality to a present he got for his 10th birthday. It was only a cheap microscope – a toy, really – but it opened his eyes to the riot of life to

be found in puddles outside his home in Perth's Tuart Hill: hundreds of amoebas, hydras, cyclops and paramecia, all wriggling about in a single drop. Rigby went on to spend his entire career as a research scientist at the University of Western Australia, where he specialised in pushing the boundaries of light microscopy with instruments worth upwards of half a million dollars – and capable of seeing individual *molecules* – but he's never lost that simple boyhood curiosity about the natural world. The 66-year-old grandfather is always picking up interesting-looking things to observe and photograph under great magnification. This specimen (the image shows a section about 1mm across) was something he found while waiting at a bus stop one morning. Can you guess what it is?

Here's a clue: it's nothing exotic. Certainly nothing as weird as some of the objects he's been asked to look at by colleagues in academia. Rigby, who retired in July, specialised in biomedical research (he spent 20 years investigating the causes of asthma) and animal biology, but his expertise with light microscopes had people from many other disciplines – geologists, botanists, chemists, engineers, marine biologists – knocking at his door. He's turned his instruments' penetrating gaze onto everything from rock core samples to woolly mammoth hair to bee sperm (you *really* don't want to know), using a laser-assisted technique known as "confocal autofluorescence".

And this specimen? Anyone who said, "I'd wager it's the underside of a paperbark leaf," take a bow. Who'd have thought it would look like this?



Photography Paul Rigby

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