

ABOVE
Erich Kisi
Hangover (campus mosquito after a bad day)
2012
Zeiss Sigma Field Emission Scanning
Electron Microscope image X750

LEFT
Erich Kisi
*Animal, mineral or vegetable? (seaweed-like
structures on a mosquito's thorax)*
2012
Zeiss Sigma Field Emission Scanning
Electron Microscope image X17,600

IN SEARCH OF ANGELS

Images from the University of Newcastle's new
Electron Microscope and X-ray Centre

EXHIBITION DATES 15 February - 3 March 2012



THE UNIVERSITY OF
NEWCASTLE
AUSTRALIA



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THE UNIVERSITY OF NEWCASTLE CALLAGHAN 2308

E gallery@newcastle.edu.au

W www.newcastle.edu.au/universitygallery

T + 61 02 4921 5255

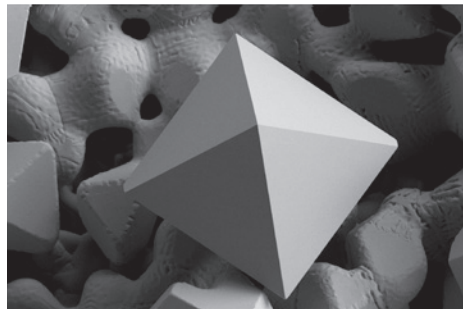
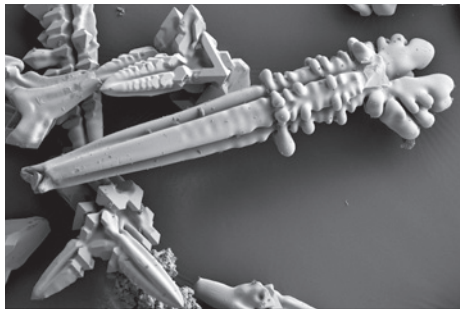
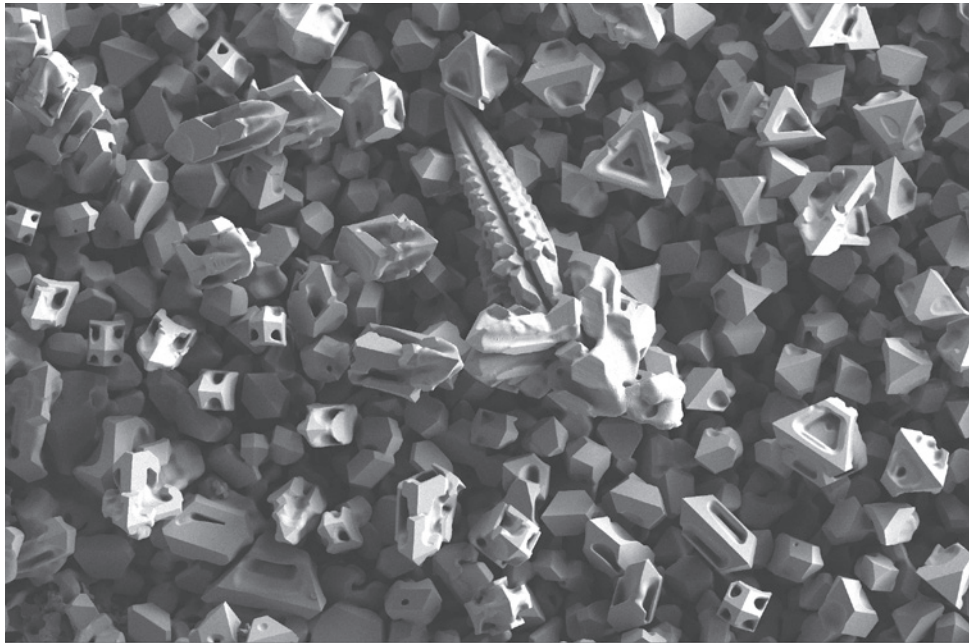
OPEN Wednesday – Saturday 12 noon – 6pm or by appointment



IronBark Hill
VINEYARD

Share in the fun!

THE UNIVERSITY
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TOP

Erich Kisi

Sunnise over the lost city (calcium manganese oxide crystals)

2011

Zeiss Sigma Field Emission Scanning Electron Microscope image X615

ABOVE LEFT

Erich Kisi

Devil's playthings 4 (calcium manganese oxide crystals with unusual coexistence of geometric and dendric forms)

2011

Zeiss Sigma Field Emission Scanning Electron Microscope image X875

ABOVE RIGHT

Erich Kisi

Perfection from chaos 1 (near-perfect calcium manganese oxide crystal growing from a jumble of irregular grains on the surface of a fired ceramic sample)

2011

Zeiss Sigma Field Emission Scanning Electron Microscope image X7,300

How many angels can dance on the head of a pin?

Medieval philosophers debated whether angels had an ethereal existence as a pure intelligence or whether they had any spatial extent, and if so, how much?

In microscopy, we seek to understand the behaviour of material objects (cells and organisms, metals and ceramics, electronic circuits, etc.) by closer and closer scrutiny. This search not only unearths scientific understanding, but also the inherent beauty of the tiny structures that make up the material world around us and yet which go unnoticed in our daily lives. This often requires magnifications so large (greater than 100,000X) that the image is quite surreal and disconnected from the object under study.

We are fortunate to have a new Electron Microscope and X-ray Centre on the Callaghan campus and several new microscopes with which to conduct our studies. This exhibition brings together some of the more striking images taken with these instruments and their predecessors, including micro-forests, hidden cities and the labyrinthine surface structures of animal, vegetable and mineral origin.

- Professor Erich Kisi, Academic Head,
Electron Microscope and X-ray Centre,
the University of Newcastle



ABOVE

David Phelan

Wheels within wheels (doubly spiralled tungsten incandescent light filament)
(detail)

2012

Zeiss Sigma Field Emission Scanning Electron Microscope image X3,400

COVER

Erich Kisi

An alien in our midst 1 (mosquito proboscis)
(detail)

2012

Zeiss Sigma Field Emission Scanning Electron Microscope image X3,100

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