Big Wet presents unique opportunities

Image: Ian Waina using an Agilent 4300 handheld Fourier Transform Infared Spectrometer in April 2017.
Photo: Damien Finch.

This year's 'wet' was one of the biggest on record and presented a terrific opportunity for researchers to better understand the impact of the humidity and drenching rain on rock art. Visiting and observing the rock art sites in such contrasting conditions to the dry season is a vital component of research.

Following Ian Waina's week-long visit to Melbourne in March, Ian and the Melbourne University Dating team travelled to the Kimberley for a week of 'wet season' fieldwork.

Standing in torrential rain, recording the pathways of the water flow and the interaction with the art pigment was a unique experience, says Helen Green.

Armed with a handheld *Fourier Transform-Infrared Spectrometer*, on trial from Agilent technology, the scientists were able to scan the mineral accretions forming in and around rock art in the shelters and identify the different minerals present without removing any material.

An important part of the *Dating project* is to get a better understanding about the chemistry of the weathering of the art; we want to know how to conserve and protect the paintings and the only way to do this is to understand the formation of the mineral accretions. Recording the pathways of the water ow and observing the interaction with the art pigment – and what happens to it – will provide vital information about how to preserve the art. It may also help identify accretions most suited to dating.

The Dating team, including a number of Balanggarra Traditional Owners and Waina family members from Kalumburu will be reunited with the researchers in the field for the 2017 sampling season this June.