

University News

World class 3-D models help reveal cultural treasures

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Cutting edge super-computer visualisations of Aboriginal sites in Western Australia's remote Weld Range are helping archaeologists and Wajarri Traditional Owners reveal the area's cultural and archaeological treasures and train a new generation of young Wajarri in how to protect their heritage.

Archaeologists from The University of Western Australia are working closely with the Wajarri Traditional Owners to explore and record sites of extraordinary cultural and archaeological significance in the 60km range, located 600km north-east of Perth.



The two-way information exchange, known as the Weld Range Web of Knowledge, has seen a series of field trips to the region, followed by stints in Perth where Wajarri Traditional Owners work with their archaeological colleagues to examine and document their findings.

During the last round of fieldwork, the team was joined by Associate Professor Paul Bourke, Director of UWA's IVEC facility, who worked to create three dimensional computer models of four of the sites under investigation for the Web of Knowledge project.

Using only photographs and computer software, the complex shape and high definition detail of surfaces has been compiled to produce a three-dimensional video.

"This work provides detailed archive information about sites which are constantly subject to erosion or the threat of disturbance and will facilitate future educational projects and cultural heritage management," project director Dr Vicky Winton said.

Apart from revealing the outstanding heritage values of the area, the Weld Range project aims to provide the local community with much-needed heritage assessment and management tools, as well as access to opportunities for high-end research.

For the next two weeks, three young Wajarri Yamatji men will work at UWA alongside Dr Winton and project coordinator and UWA Masters student Vivienne Brown.

Gordon Hamlett, Kenny Bell and Kendall Hamlett have travelled from the Murchison region, where they are Traditional Owners of the Weld Range. The Range includes the nationally heritage listed site of Thouarri Thar or Wilgie Mia - a highly significant dream time story site and ochre source used for thousands of years.

While in Perth, the trio will work with Dr Winton and Ms Brown on post-fieldwork analysis and data management, adding to lab work by their family members Brendan Hamlett and Liam Bell done during an earlier trip to the city.

During that trip, Wajarri Traditional Owner Brendan Hamlett learned from Chae

Byrne (UWA PhD student) how charcoal fragments can be identified to tree species.

"You can tell what wood people have been burning just by looking through a microscope and then find out how old it is [using radiocarbon dating]," Mr Hamlett said. "We use hardly any Mulga when we cook, don't even think of using it. We use Miniritchie because it stays hot, Gidgee which goes to ash but is hot underneath and doesn't smoke much. But the charcoal down here [excavated in the Weld Range and stored at UWA Archaeology laboratory] shows that it was different in the past. It was a surprise. Why would they use mulga? Old boy [his father, Colin Hamlett] and I, we'll have to try that wood out."

It is hoped that the project will inspire on-going research and education. Mr Hamlett said training of the next generation - including his nephew Liam Bell - was a priority for the Wajarri Traditional Owners.

"Liam is one of the youngest ones who has come down here now and learnt this stuff," Mr Hamlett said. "Now he can pass it on to his kids and their kids so it's never lost."

Mr Hamlett's son and nephews are looking forward to getting stuck into their University experience, which will last from the 7th-18th July.

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Media references

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