

Mapping UNSW Impact Global Development

Primary SDG	4: QUALITY EDUCATION
Broad theme	History of human settlement in PNG
Research	Archaeological survey and excavation in the PNG highlands to understand when people settled the area and how they lived
Impact region	PNG
Faculty	Science
School/Institute	School of Biological, Earth and Environmental Sciences
Academic	Dr Judith Field
	Dr Ben Shaw
Project partners	ARC funding - \$450,000 from 2015-17
	Otago University, PNG National Museum and Art Gallery
Related SDGs	8: Decent Work and Economic Growth

Elevator pitch

Through archaeological investigations, UNSW is examining the settlement history of PNG and determining how and where people lived, providing invaluable information for school kids and local tourist guides and bush museums.

The Challenge: Knowledge about PNG's history is patchy

Our understanding of the human history of PNG is founded on a handful of archaeological sites. They show that people first settled in New Guinea at least 50,000 years ago. Some of the world's earliest agriculture has been found in the highlands at Kuk Swamp. But little is known about their way of life.

Australia and PNG used to be one land mass referred to as Sahul until around 9,000 years ago when rising sea levels flooded the Torres Strait. Australia's history is intricately linked to PNG's history – people are believed to have migrated through PNG on their way to Australia - yet little attention is given by Australian historians and archaeologists to PNG.

UNSW's solution: Archaeological digs in the highlands to understand way of life and diets

Having undertaken previous archaeological digs in the PNG highlands, Judith Field and her team focused two valleys, which may have acted as a corridor for people migrating from the coast to the mountains. Employing around 20 locals to assist them they identified over 50 sites in three years, one of the most comprehensive archaeological surveys undertaken in the highlands to date.

In addition to confirming food sources (yam, taro, bananas, tree nuts), they were able to paint a more detailed picture of life back then, how people lived and what they ate. Judith and Ben shared this knowledge a number

of local schools in the area, at seminars at the National Museum in Port Moresby, with international visitors at conferences and on local radio. With further funding, Judith and a team would look to expand the number of sites in the region.

On another project, Judith is involved in identifying plants used in rock art in the Kimberley in collaboration with La Trobe University and the University of Western Australia. They are hoping to understand more about the plants used and to therefore date the rock art.

The Impact: Share discoveries with local schools, guides and museums

Judith and Ben shared their findings with the National Museum and primary and high schools in the Madang Province. School teachers and students were very responsive, with little known about ancient life in the highlands. They also handed out pamphlets detailing their findings to local community organisations and members, including local guides and bush museums. Judith and Ben also employed and trained around 20 locals over six months to survey, dig pits, sieve soils and record weights and observations.

Researcher

Dr Judith Field is an Honorary Senior Lecturer at UNSW. After completing her PhD in the School of Geography, Judith worked as a research fellow at UNSW and the University of Sydney. She is interested in palaeobotany, which involves the ancient starch analysis of ground and flaked stone tools. Recently she has been focussing on starchy plant use in PNG, a country she describes as very special to work in.

Ben Falkenmire 26.10.17