

Modern transport options allow for more hunting time

May 1 2015, by Geoff Vivian



The research team, which also consisted of US anthropologists, came to this conclusion after numerous “follows” of Martu people on their hunting trips over three decades, quantifying the game and plants they obtained and quantifying the energy spent pursuing and encountering species. Credit: Rusty Stewart

The widespread use of cars and easy access to diesel fuel have been

credited with prompting certain traditional desert Aborigines to stop making bread in favour of utilising new hunting grounds full of game.

Traditional Aboriginal people across Australia were known to collect, grind and cook small grass and acacia seeds to make seedcake or damper.

While most groups stopped the practice with the introduction of wheat flour, WA's Martu people continued to gather and use small seeds in their Pilbara desert homelands east of Port Hedland until the early 1990s.

UWA archaeologist Winthrop Professor Peter Veth says Martu habits changed when more reliable motor vehicles appeared and people preferred to spend a day travelling to new hunting grounds where they might find abundant game, rather than spending a whole day preparing a very small amount of bread.

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This change in behaviour is a phenomenon known to economists as "opportunity cost": a day spent collecting, winnowing, wet-grinding and cooking seeds is a day that cannot be spent travelling to a distant hunting ground and catching goannas.

Prof Veth says the "opportunity cost" explanation should help archaeologists understand prehistoric colonisation patterns over the past 10,000 years.

Seed-grinding used to support larger numbers

He says various archaeological digs have turned up "informal" grindstones up to 10,000 years old in Australia's arid regions.

However, as people became more numerous, he says small seed gathering became more common.

"If you wanted to support a large group of people for ritual ceremonial purposes you'd need more reliability and more energy capture than you'd get from just casual [hunting](#) of game," he says.

"So people did set up these very intensive seed-grinding stations.

"Seeds are expensive to procure and expensive to process and you are getting about 300 kilo-calories per hour.

"But the one thing they didn't need to do during these aggregations was... move to other patches let alone move to other communities or sub communities."

He says independent excavations at Barrow Island and other places show "formal" grindstones—dedicated mortar and pestle implements in each campsite—appeared about 2,000 years ago.

He takes this to indicate population numbers increasing, and perhaps a greater sense of territoriality as people became less mobile.

More information: "Diesel and damper: Changes in seed use and mobility patterns following contact amongst the Martu of Western Australia," *Journal of Anthropological Archaeology*, Volume 39, September 2015, Pages 51-62, ISSN 0278-4165, [dx.doi.org/10.1016/j.jaa.2015.02.002](https://doi.org/10.1016/j.jaa.2015.02.002)

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