

The enormous collapse entrance to Koonalda Cave.



## A TRIP TO THE NULLARBOR

– Steve Bourne

To get to the ACKMA conference in Margaret River in May, Brett Dalzell, Nick Heath and myself drove from Ceduna. On the return trip we visited a number of cave and karst sites across the Nullarbor. One intended destination was Koonalda Cave, but time and a key (or lack of both) meant we did not enter the cave. Amazingly, while checking emails in Ceduna prior to flying back home I found an email from South Australian Museum archaeologist Dr Kerryn Walshe, who was interested in visiting Koonalda Cave. Kerryn had heard of the work we had been doing at Naracoorte with scratch marks in caves we considered could belong to the Marsupial Lion (*Thylacoleo carnifex*) and wanted to compare these with marks in Koonalda. A few emails later, permit arranged, Brett agreeing to lead the trip and dates set, all was set for another Nullarbor adventure!



Has our illustrious life member,  
Greg Martin, previously visited?

Nick, Andrew Hansford and myself flew to Ceduna on Sunday evening to be met by Brett. We departed early Monday morning with a fully laden vehicle; food, plenty of fluids, caving gear and of course the key this time. When we stopped at the Nullarbor roadhouse, approximately 300 km west of Ceduna, we were joined by Kerryn, Dr Gavin Prideaux and Sam Arman from Flinders University. We departed prior to them thinking they knew the way but three hours after we had arrived, and as darkness approached, we were pretty certain they were lost. Concerned, we had another beer and hoped they would find their way, which they eventually did after driving all the way to the Western Australian border. As it was too late in the day to start caving, we settled into camp and decided on a visit the next day.

Koonalda Cave has a large collapse entrance which we abseiled down. Illegal entry is prevented by a large steel gate, which unfortunately has been breached on occasions. The purpose of our trip was to begin analysing scratch marks and try to determine differences between those of human and animals. We discovered scratch marks on the walls and many floor rocks. Komatsu Cave (5U240) at Naracoorte, where I had discovered scratches previously, had a clearly defined path, polished rocks and marks near water in the cave, left by animals. The possible use of the cave by *Thylacoleo carnifex* was presented at the recent CAVEPS fossil conference. Many years visitation by Europeans had obliterated any defined pathways of either early Aboriginal visitors or animals to Koonalda Cave. Despite this, many scratches are clearly visible and prompted much discussion.

An example of scratch marks made by humans using a sharp tool – scale 52 mm.



Markings in the cave could be roughly grouped into four categories; Aboriginal markings made using fingers, Aboriginal marks made using a hard pointed object such as a stick or stone, animal scratches and modern graffiti. The Gallus Art Site, named after the archaeologist who first described the markings, is a wall of finger fluting near the end of one leg of the cave. The route there is quite steep and well into the dark zone.

It has been suggested the shape of the cave may have altered since the markings were made. Gallus proposed an age of greater than 19,000 years for the 'art', however dating markings on a cave wall is fairly problematic. Close examination of the markings shows some geological modification since they were made, with small corrosion grooves intersecting the finger-sized grooves. Modern marks are smooth with no such modification so it is reasonable to expect these marks are of some antiquity.

Some marks appear to have been made using a stick or sharpened stone. Given that Koonalda Cave was a flint mine for Aboriginal people, the second option may be more likely. Several excellent examples were noted distinguished from animal markings by the number of parallel lines and consistency of length.

Mimicking animal scratches may have been a motivation for these marks. The motivation for the finger flutings may be the same or has been suggested as ceremonial practice. Kerryn intends to undertake further study on Koonalda Cave scratches and a careful analytical approach may yield a better understanding of what motivated the art.



The Gallus Art Site – scale 72mm.

Animal scratches are difficult to determine to species level, however scratches that could be attributable to possums, Tasmanian Devils, quolls and wombats, based on size, were found. We found nothing that matched scratches in Komatsu Cave that we have considered as possible *Thylacoleo* scratches.

It was disappointing to see a large amount of modern graffiti, including name writing over Aboriginal markings. Accidental damage caused by people brushing past the art is also evident. Track marking could possibly assist in limiting further damage and Brett's approach to leading researchers into the cave will also protect accidental damage to important sites.

We inspected the enormous archaeological excavations of the 1960s, over five metres deep, that yielded a very limited amount of material. The second branch of the cave has lakes from where the Koonalda Station owners, the Gurney family, extracted water for their stock.

The impacts this caused on water quality, with sheep droppings washed into the cave polluting the water, was documented many years ago. Perhaps the mud and water is still polluted as I left the Nullarbor with an infected foot after crossing one lake in bare feet. The mud was only waist deep, much to the amusement of my fellow cavers who unkindly suggested I looked like a mired buffalo.

Satisfied with the day's work, we departed for camp. Kerryn, Gavin and Sam made a quick visit to Allen's Cave, the site of Kerryn's PhD studies, and arrived back well after dark.



Animal scratches in Koonalda – scale 52 mm.

On Wednesday, Kerryn, Gavin and Sam departed for Adelaide while the rest of us headed to the Border Village to watch the State of Origin rugby that evening. On route we visited Weekes, Mottled and Handprint Caves.

The first has enormous owl accumulated fossil deposits and a large number of pitfall victims including kangaroos, wombats, dingos and very large snakes (some fresh but all dead fortunately). Owls, probably Masked Owls based on the size of egg shells, still use the site. Bandicoots appeared to be most common food in the past but given they are now extinct on the Nullarbor, the owls have had a change of diet. Modern pellets examined contained reptile, bird and bat bones.



Mottled Cave has large amounts of very old decoration and some new delicate translucent straws. As with Weekes, many mummified kangaroos and wombats were present. Maybe one day some mummified Pleistocene megafauna will be found? We can only dream. Most animals found their way to the bottom of the cave where they died near the decoration and hence water.



Nick Heath admiring new growth straws in Mottled Cave

A walk-in cave, Handprint is well named. Brett even visited it after he rigged it. With the earlier caves he waited on the surface, which had little to do with providing safety. A number of hours were spent unsuccessfully looking for another cave, which we concluded was nowhere near where the map said it should be.

A shower and the rugby was enjoyed at the Border Village before we wound our way home to recreate some of the heroics of the rugby and unwind after a day's caving.

After a rather slow start to the last day sporting a few 'origin injuries', it was time to pack up and wind our way back to Ceduna. We visited a few more caves on the way back including Ivy's Cave, a rather nicely decorated cave, and the Murrawijine Caves, important archaeological sites. Murrawijine Three has some nice handprints spoiled with modern inscriptions written in the palms. What possesses some people to do this is beyond me. One can only hope they do not continue to populate the world.

Our enthusiasm began to wane and when Brett said, "I'll rig the cave for you" for the umpteenth time, we guessed that meant Nick, Andrew and I would go caving while Brett relaxed in the vehicle-again! We decided home was looking good and instead stopped for a spot of whale watching at the Head of the Bight. About 40 adults and 8 calves had been recorded this season with about 20 visible when we visited.

One can only admire the resilience of Aboriginal people who lived on the Nullarbor, even though it must have been much different prior to European arrival. The tenacity of European people who attempted to tame the land and eke out a living is amazing. I also have nothing but admiration for cavers who repeatedly visit the Nullarbor and document sites.

The *Thylacoleo* caves found in 2002 are just one example of what else is probably out there awaiting discovery. It is, however, a vast landscape and many year's work remains to be done. The caves are fascinating and I will be back in October!!



Graffiti on an Aboriginal hand stencil – Murrawijine Cave