Gems Around Australia
Part 5

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In the next few 'episodes' of the Gems around Australia trip, we will look at, as well as gems, some of the ornamentals which are found in Western Australia.

Western Australia is the home of ornamentals. Certainly the other states have their share of ornamental gems, but Western Australia wins first prize for variety, quantity and quality.

Kununurra is the only town to be established in the Kimberley region this century. Built in the 60's, it is in the heart of the Ord River irrigation farmland. It is also the nearest town to the Argyle diamond mine, approx. 200km away.

Kununurra, only 30km from the Western Australia/Northern Territory border, is famous for the only known deposits of zebra stone in the world. Zebra stone is a quite attractive fine grained siliceous argillite with patterns of red bands or spots which contrast with a cream or white background. (Fig. 1)

Geologists have investigated zebra stone for the past forty years or more, without producing any valid explanation for the regular patterns. They do know, however, that the red portions are coloured by ferric oxide.

The age of zebra stone has been placed in the Upper Proterozoic era or Pre-Cambrian period. The deposits of zebra stone are found in small reef outcrops of stratified claystone or shale. It is not found throughout the whole reef, but in small individual reefs which are spasmodically placed within the major reef.

The interesting thing with zebra stone is that it may appear as plain brown stone without any apparent patterns, but when cut, either with a diamond saw, or hack-saw (which gives a better cut) will produce the 'lines and dots' pattern associated with zebra stone. (Fig. 2)

For several years, I had endeavoured to find out how zebra stone was polished. Especially in Kununurra, zebra stone is used in all types of jewellery and souvenirs, and always displayed a 'furniture polish' finish. I had tried, unsuccessfully, to polish zebra stone in the traditional lapidary manner, and on a previous trip to Kununurra had enquired of several people and shops as to the polishing procedure for zebra stone. It seemed to me that this was a 'closed secret'.

In Kununurra this time, we picked up a brochure for the newly established Zebra Rock Gallery, and much to my surprise the brochure announced "we will show you how to polish your own piece of rock". To my utter amazement the polish was no more than a coating of lacquer, and there was no objection to my photographing the 'mysterious' product. (Fig.2)

Zebra stone varies in hardness and quality depending on the site from which it has been taken. Some zebra stone is quite porous and chalky while other is very dense with sharply defined patterns. Each piece is hand cut and rubbed with wet and dry silicon carbide papers, then 'sealed' with a hard compound to prevent the red iron oxide from wiping into the lighter coloured portions of the stone.

An area is available to fossickers who wish to find their own zebra stone, however, the quality of material from this

Fig. 1. Zebra stone rough.

Fig. 2. 'Polishing' zebra stone is made easy.

area bore little resemblance to the material mined from the lease areas and available for sale in the gallery and the many shops in Kununurra. Good rough material was available for sale.

While in Kununurra we were told of some amethyst and quartz crystals back along the Duncan Highway — an area a few kilometres past the zebra stone fossicking area. Here we found large plates of milky white quartz, and even

Fig. 3. Prehnite embedded in basalt — Kununurra, W.A.

Fig. 4. 'China Wall' at Halls Creek, W.A.

though we brought several pieces home with us, it did not warrant getting too excited about the deposit. The amethyst was elusive, although I believe it was there, somewhere, as we found chips and very small pieces on the surface.

We were also told that we could find prehnite just out of Junnurra, and given specific instructions how to get there. There was prehnite there, firmly embedded in the basalt, (Fig. 3) but after the ease of fossicking for good quality prehnite at Wave Hill, we did not bother too much at this site.

Some 370 kilometres south is Halls Creek, famous for its gold, and the availability of gold still evident by the number of people toting metal detectors around. Alluvial gold can still be found during each 'wet' season when the streams are running.

Five kilometres out of Halls Creek is China Wall, publicised as a tourist attraction and of much interest to us. (Fig. 4) China Wall is a sub-vertical quartz vein which projects above the surrounding rocks to form a natural white

Fig. 5. Limestone, Geikie Gorge, W.A.