





n a wet July day in the school holidays, my family and I drove 45 minutes from the Perth CBD to Yanchep National Park to join one of the guided tours of Crystal Cave. There was much chatter in the car on the way up about the likelihood (or lack of) that we'd see any of the cave-dwelling superheroes that occupy space in my six-year-old son's imagination, and a general buzz of excitement that we were going to spend the morning underground.

We started the tour at a shelter decorated with information panels that provided information about how caves were created and the type of creatures that live there. Here we met our tour guide Jonnie Saegenschnitter, who has an infectious adoration of the caves and is a font of information about their history, geology and ecosystems. Then, it was time to set off, and my kids' eyes widened when Jonnie showed us to the stairs that led down to the "first chamber", which, in the minds of a four and six-year-old, might as well have been middle Earth. Any concerns I had that they might be unsure of being in a dark environment were quickly allayed when they charged ahead (a little too fast for my liking) down the steep steps and into the cave.

DOWNWARDS DESCENT

Once I made it down the stairs, my senses went into overdrive interpreting



this new and unfamiliar environment. The first thing I noticed was the dense quiet of being underground – a stark contrast to the sound of the wind whipping through the trees above us. The second thing I registered was the ambient temperature. The cave is an average temperature of 15 to 20 degrees Celcius changing slightly with the seasons, so it was nice to get some shelter from the wind chill aboveground. Jonnie noted that cave tours were particularly popular on summer days when the conditions were a welcome relief from the heat.

Over the next few moments my eyes adjusted and I could more clearly make out my surroundings. The quiet of the cave was soon disturbed by utterings of 'wow' and the 'ooos' and 'ahhs' of members of the group. The descent into the 'first chamber' is just nine metres beneath the ground but it seems like another world. The decorations that adorn the walls and

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Top Chloe (4) and Bailey (6) enjoying a trip to Crystal Cave.

Bottom Magnificent columns adorn the caves.

Above left Tour guide Jonnie Saegenschnitter leads the group through Crystal Cave.

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Above 'Shawls' are so called because they look like hanging fabric.

ceiling came into focus and Jonnie pointed out stalactites, stalagmites, shawls, columns and straws.

He explained that the caves were formed when carbon dioxide from the atmosphere dissolved in rainwater, which then absorbed other acids. This seeped through decaying vegetation at the soil surface and slowly dissolved the underlying limestone, which is quite soft, comparatively speaking. Some cave systems were formed by underground lakes that gradually dissolved rock and created passages and chambers, while others were carved by underground streams and rivers.

UNDERGROUND TREASURES

After another short descent, our next stop was the magnificent Pantheon chamber. This spectacular space, which is 17 to 18 metres below ground level at its deepest point, is about 300 square metres. Everywhere we looked we saw beautiful









Far top left Jonnie shows the group the properties of a column, which resembles a big lump of candle wax.

Far left Everywhere you look in the cave there are spectacular formations.

Left Visitors to the cave have the opportunity to touch some display stalactites.

Below 'Straws' have formed from a drip of water leaving behind a calcium deposit.

and ancient formations. The solid 'shawls' look like they may blow in a breeze, obviously named because they look like bits of fabric draped from the roof. The columns look like they were created by massive melted candles. And the straws are spectacular hollow structures that have formed from a drip of water leaving behind a calcium deposit.

While admiring the cave and its remarkable formations, we were rewarded for also paying attention to its more minute features. While we were there, a single drop from a stalactite fell onto the corresponding stalagmite that it was creating underneath. One drop may not seem significant until you consider that the 'growth rate' of these remarkable formations is about one inch every 100 years.

GAME CHANGER

In the middle of the chamber, a small body of water captures the reflections of the cave roof. This water has been piped in, and unfortunately is a fraction of the amount that once naturally existed here. Water levels in the cave began to drop and became completely dry in 1997. This was most likely caused by human activities on the Gnangara Mound aquifer and has destroyed the environment once inhabited by a number of species of stygofauna. Efforts were made between

2000 and 2012 to re-water the cave, but unfortunately these were unsuccessful. Considering water has most likely been present in the cave for up to 200,000 years it's alarming that human impact could have such a significant toll.

Sadly, the dry caves are not the only sign of human impact – there are a number of stalactites that bear the scars of 'souveniring' and some structures that are forever changed by the accumulation of the 'invisible' oils that humans carry on their skin. Nowadays, those looking for a tactile experience on the tour have the opportunity to touch some of the display stalactites as part of a hands-on display.

Nearing the end of the tour, Jonnie pointed out footprints in the sand belonging to rats – the only mammal that occurs in the cave. He also told us that the local Nyoongar people believed the caves were inhabited by the feared Ginki Spirit, so they never entered them. This means it's unlikely the caves were used by people until Europeans discovered them 114 years ago.

At the end of the tour we climbed back up the stairs and into the sunlight, exhilarated by our experience underground. The rain held off long enough for us to enjoy a walk along the Wetland Trail and a visit to the koalas. And lunch at the Yanchep Inn was an added bonus. Exhausted by the day's activities there wasn't much conversation

in the car on the way home, but any talk of superheroes was replaced by reflections about stygofauna, and our beautiful natural environment.

Do it yourself

Where is it?: Yanchep National Park is 51 kilometres north of the Perth CBD.

What to do: Cave tours, bushwalking, culture appreciation, picnicking, camping, wildlife appreciation.

Take a tour: Tours of Crystal Cave are run every day. Bookings for the tour can be made at McNess House Visitor Centre 30 minutes prior. Adventure caving tours are also run.

Contact: Yanchep National Park Cnr Indian Ocean Drive and Yanchep Beach Road Yanchep, Western Australia, 6035

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