

2021 Nature Writing Prize shortlisted essay

Meditation in Stone by Marian McGuinness

Something seismic shifted in me on the morning of *Christmas, 2020*.

My children and grandchildren were coming over in the afternoon for early dinner celebrations. It was drizzling, and the thought of waiting at home all day in the rain, irked me.

I hacked off some Christmas cake, filled a thermos with hot water and packed a basket with mugs, tea bags and Christmas serviettes.

I prised my too-comfortable husband out of his cosy chair and drove north. Out of Sydney. Up the M1 Pacific Motorway, funnelling through the grand sandstone chasms of Ku-ring-gai National Park; each wall bearing the weight of its Triassic past. Their seeping sedimentary bluffs topped with grey eucalypts. Their weathered joints seeded with weeds and flashed with creamy flannel flowers and golden wattle filigrees. And in the distance, along the forested sky-rim, volcanic plugs popped like exclamation marks.

Even the drizzle washing the windscreen could not dampen my need to see more water; estuaries of it. As far as the eye could see. I pulled off the M1 where the Hawkesbury River ran beneath a gauze of mist that could have been exhaled by the river herself, and turned off the road into the unassuming peninsula of Kangaroo Point nestled beside the Meccano caterpillar that is the Old Brooklyn Bridge.

I had come to see sandstone. Weathered; pockmarked. Story tellers in their alluvial layers.

I had come to see water. Slate grey. Rippling. Pondering.

...

Kenneth Slessor, in his elegiac poem, *Five Bells*, captures the mood of Sydney Harbour and anchors readers into his vision with the water's 'Deep dissolving verticals of light.'

The more I watch the movement of the Hawkesbury River that runs north-parallel to Sydney Harbour on this misty Christmas morning, the more I wonder of its underlyings as hinted in Slessor's continued reflection.

'The time is over you, and mystery,
And memory, the flood that does not flow.
You have no suburb.' [1]

John Olsen's panoramic mural, *Salute to Five Bells*, as a nod to Slessor's poem, stretches the length of the northern foyer of the Opera House on Bennelong Point. It's on this same rocky headland where, before a different time began, Gadigal women and children gathered oysters on the rocky promontory known as *Tubowgule*, meaning *where the knowledge waters meet*. [2] Olsen's ultramarine manuscript of shifting notations, blobbed with psychedelic sea creatures, creates its own mythology about what lies within the stratosphere of water.

With the rain eased, my husband and I take our thermos and Christmas Cake and sit on a sandstone boulder overlooking the Hawkesbury River. I brush off the needles of she-oak to rest the plate of Christmas cake. Flicking aside more leaf litter my fingers slip into furrows. There are a series of them, parallel axe grinding grooves like miniature V-shaped valleys; oyster-grey and splotted with green doilies of lichen.

Where is this place that I have come to on such a blessed morning?

I walk to the end of the peninsula and look down to the water's stony edge. The rocks are covered with oysters. It's then that I see a block of sandstone

balanced above the water. It has a carving of a stingray on it. Plain and simple. Beautifully engraved. And there's another, and a fish, more weathered. And above, the faint etching of a jellyfish with its languorous tentacles.

It was a jolting moment of recognition of something bigger than I could put my finger on. Why am I here, and those who *were* here, are not?

Like an image portal, I'm flashed back to my childhood. A wild, eight-year-old Scout Finch, running through the bush with my mates. Our playground in the 60s was the bush of the Lane Cove National Park in Sydney's north, where days, from dawn to dusk, were spent straggling along creek beds, swimming in rock holes under miniature waterfalls, scrambling over mossy boulders and roaming tracks that wound their ways for miles.

It was on one of these days that we came across a large rock platform in the middle of the bush. The only other observers were the kookaburras, magpies and red-bellied black snakes that we occasionally saw.

We three kids climbed onto the rock platform and wondered at the shape that was carved. It was a whale. Who could have carved it, and why in the middle of the bush? My eight-year-old self had no idea the significance that this find would have on me, or the connection I would feel all those decades later as I stood at the edge of the Hawkesbury River looking down upon the etching of the stingray. I soon found out the stingray was carved by the Guringai people who lived on these shores of the Deerubbin River – their original name that meant wide, deep water, as they ate their oysters, fished ... and carved stingrays into sandstone boulders.

How many stories are waiting mutely within our rocks? We walk on them, climb them and slide down them. We shelter beneath their overhangs and jump off their precipices.

As told by geologist, Jan Zalasiewicz, in *The Planet in a Pebble*, 'they extend back to the Earths' formation – and then yet farther back, to the births and deaths of ancient stars.' [3]

The word *nature* derives from the Latin, *nasci. To be born.* Again, Zalasiewicz unpacks the gigantic stories that rocks can tell us through their birth, 'It went, it is thought – from a standing start at microscopic size to bigger than a galaxy in less than a second, seemingly far outpacing light itself.' [4]

Basalt. Granite. Peridotite. Iron.

Crust. Mantle. Core.

All that lies beneath our feet, have stories. When I wear my peridot earrings, I am wearing part of the Earth's mantle. This gemstone is found in lava and in meteorites. Such is the majesty and mystery of rocks.

In the outback savannah country of Queensland's Tropical North, amongst its dry sclerophyll eucalypt forests, are found the Undara lava tunnels.

Once more, it's a story of rocks that brings me here; it's where nature's timeline immerses me into her ancestry when volcanoes lorded the land.

Vermillion termite mounds, round like trundling prehistoric mammoths, are caught in freeze-frame through the tall, silver grasses. Triassic era red granite outcrops intersperse with burstings of dark, hardened lava.

It's busy out here on the savannah. The place is filled with the birdsong of cockatoos, lorikeets, galahs and kookaburras while kites fill the sky with their aeronautics.

It's a landscape of black-bottomed grass trees and bottle trees, where echidnas rummage and dingoes, roam. I'm having a time trying to count the different types of macropods – the kangaroos and wallabies.

About 190,000 years ago a shield volcano southwest of Cairns, erupted. Seething rivers of lava, bubbling at a fiery 1200° Celsius, flowed for up to 164 kilometres creating a lava field greater than 1000 square kilometres.

Lava spewed over the landscape carving deep hollows in the ground at a rate of 1000 cubic metres a second, enough to fill Sydney Harbour in six days. This majestic mass eruption took an astonishingly short eight weeks. Eventually the lava drained out of the crusting tubes and everything cooled down. In recent geology, no single volcano on Earth has had a longer lava flow. There is no other lava landscape in Australia with such an impressive bounty of 164 volcanoes, cones and vents. [5] Weaker roof sections of the tubes have now collapsed forming caves and depressions of which more than fifty have been found. Some of the tubes are so large they are like railway tunnels. And like Indiana Jones, in *Raiders of the Lost Ark*, I am champing at the bit to explore them.

While lava flowed deeply into the valley, granite formed underground. It's now breaking down and holding water like a sponge.

A slash of green emerges from a cleave in the savannah's ochre surrounds. These verdant ribbons mark out the courses of the lava tubes and it's at one of these openings that I head down a wooden stairway into a netherworld to begin my walk along the path of a volcano.

I step into an Eden where the dry heat has been taken down a few notches, as if an air-conditioner has been turned on. Insects hum and clouds of yellow butterflies flit amongst the flow of green: pandanus palms, 250 year-old strangler figs and ferns. Lianas coil animatedly and spider webs dangle from branches like macabre voile baskets. Brush turkeys scratch the same ground their ancestors did 30 million years ago. This is a primeval rainforest that traces back to when Australia

was part of the supercontinent, Gondwana. The species of plants growing here, have been found in the lava tubes of Madagascar.

Each lava tube has its own uniqueness: temperature variations, carbon dioxide components and microbat communities.

I walk under The Archway that soars a colossal 18 metres high and is 25 metres wide. It's like an interlocked Lego portico; its leached minerals swirl above me: It's calcium-white, oxide-orange, magnesium-pink and sulphur-yellow. Straw-like fumaroles, the pressure vents where gas escaped to the surface, hang like miniature stalactites.

The Undara lava tubes are such an extraordinary natural phenomena that Sir David Attenborough, upon visiting, proclaimed it one of the most unexplored geological features of the earth. In his enthusiasm, he also declared it should be the eighth wonder of the world.

Further into the rubbly tubes, beyond a tangle of vines, I enter Stevenson's Cave. It's even more colossal, like a cathedral or an enclosed football stadium. It's so dark and textured I could even be inside the oesophagus of a gigantic dinosaur. I can't resist *coo-eeing* to hear its echo.

That's when I find out about the snakes. It's safer inside the caves as that's where the non-venomous ones, the carpet snakes and spotted pythons, hang out, whereas outside the caves, it's the domain of the poisonous snakes, the eastern browns and death adders.

I've passed *Snake 101* and graduated to *Snake Masterclass* when I venture into the unique Barker's Cave. It's 860 meters long and is a microbat maternity cave. A snake waits near my feet in its signature series of s-bends; its ready-to-spring position.

Mother microbats take their naked newborns deep into the cavern and spoon them together on the roof for warmth. There are around 40,000 microbats hidden in its crevices. At the mouth of the cave, perfectly placed, is the Takeaway Tree. Microbats make tasty fast food for snakes, and most nights, curling from the tree branches, brown tree snakes and pythons wait for their takeaway dinner, dangling and poised to snatch their flying feast.

In the dark and quiet of the lava chamber, I hear the distant clicking of echolocation. The clicks louden like a Geiger counter detecting radiation. There's a whoosh overhead as thousands of thumb-sized microbats whirl out of the dark behind me, fanning the musty cave air. Skimming my head and swarming past the snake-looped Takeaway Tree the tiny bats make their escape into the black night to go on the hunt.

As I leave this place, this Eden of snakes, these Samuel Taylor Coleridge 'caverns measureless to man', [6] and the ancient geological veins long devoid of their fiery blood, I think of another English writer, Robert Macfarlane, and the words in his epic tome of landscape and deep time, *Underland*, 'Down between roots to a passage of stone that deepens steeply into the earth. Colour depletes to greys, browns, black. Cold air pushes past. Above is solid rock, utter matter. The surface is scarcely thinkable.' [7] Macfarlane could have been describing Undara.

Everywhere I go on my travels, there's an elemental need to seek out the story within rocks. I take off my shoes, remove that artificial distance between us, and walk on the rocks. I kneel and feel the grain with my fingers and palms and wonder as to who walked here before me. I want to know their stories.

I have scaled the basalt columns of Northern Ireland's Giant's Causeway. In an act of solidarity, I have carried a stone up an almost vertical goat track to the top

of the mount of Knocknarea, in Ireland's County Sligo, and placed it on the Neolithic cairn of the legendary Queen Maeve, said to be buried upright, in full warrior armour and facing her enemies in Ulster. I have climbed into the Holy Well of St Brendan the Navigator, patron saint of mariners, travellers and whales, just to touch the rock-layered walls where he too may have touched.

I have walked the craggy cliffs of Italy's Cinque Terre and descended into the dank, musty tomb tunnels of Rome's catacombs where popes, saints and slaves were secreted into rocky niches called loculi.

Deep in the grey-slabbed Pyrenees, I have traversed by torchlight the slippery subterranean riverbed of the Niaux Caves to follow the path of the families who, 18,000 years ago, walked beneath my footsteps carrying their grease lamps, charcoal and stone-crushed ochres. And where, in the illumination of my torch, bison, ibex, horses and deer surged from the cave walls in perfect perspective as these Palaeolithic people expressed their sense of place.

Closer to home, on the southern tip of New Zealand's South Island, I have squatted on a rock platform of sandstone and shale and traced fossilised tree rings on broken stumps and run my hand along the trammel lines of a petrified forest that was laid prostrate from the blast of a volcanic eruption 180 million years ago.

With the COVID-19 years rolling on, it's here on our 4.4-billion-year-old rock, that I seek out more of her stories.

In the Northern Territory's belly between Alice Springs and Uluru lies the Larapinta Trail. It is found within the dual-named Tjoritja/West MacDonnell Ranges, folded and shaped in their Caterpillar Dreaming. I walk the rocky track into Ormiston Gorge. Chasms of limestone, sandstone, conglomerate and shale diminish me as they stand guard over the sandy creek lined with river redgums.

I skim waterholes, arched by stark ghost gums, immortalised by Albert Namatjira's watercolour brush. Deep within the hidden world of this ochre gorge I find on ledges above, a wind-rippling procession of endangered cycads. *Macrozamia macdonnellii* – *MacDonnell Ranges Cycad*. [8]

Some are three centuries old. Sage in colour; sage in wisdom. Their palm fronds plume from their crowns and nestle precious seed cones as their roots tap deep into moisture-trapping rock crevices.

For millennia these cycads have flourished beneath the Milky Way. They have mortared their place within these ancient rocks, witnessing the songs of the Arrernte people, the stories of explorers, travellers and spiritual pilgrims. A revered life surviving on the oldest continent on Earth.

I must have rocks in my DNA. My Irish grandfather emigrated to Australia the same time that the Titanic sailed. With his family lineage of stonemasons who crafted cathedrals in Ireland he carried on the tradition in Sydney where he sculptured memorial statues, the Rose window and gargoyles of St Mary's sandstone Cathedral and hewed the interlocking grains of Moruya granite on the pylons of the Sydney Harbour Bridge.

For many years, Western Australia's witty, gritty writer, Tim Winton, four-times winner of the prestigious Miles Franklin award, has drawn me into his landscape of place writing luminously about the margin between desert and sea in his coastal memoir, *Land's Edge*.

'An easterly wind spikes out across the broad lagoon flattening the sea and running rashes across it in cold gusts. The blunted swell butts ... in feeble lines that lie down before the wind ... the horizon looks like a rip saw. The sand is cold beneath our bare feet and the dunes damp and spicy with marram grass and saltbush. I flinch

at the sound of a school of whitebait cracking the surface a few metres away. It's alive out there. I am at the beach looking west with the continent behind me as the sun tracks down to the sea. I have my bearings.' [9]

Two hundred kilometres north of Perth on the Coral Coast where limestone-spotted scrub and ghost-rippling sand dunes rim the blowy turquoise Indian Ocean, is found the Nambung National Park and its enigmas in stone, the Pinnacles.

Tracking into its desert, I may well have passed through a stone circle into some ancient unformed land – the Narnia of creation. Thousands of limestone spires up to 4 metres tall rise like spectres from the sand-ochre dunes. It's a tombstone valley. A fairy realm. A gnome kingdom of stone sprites and gathering gossipers with the ocean peeping from behind.

The origin of the pinnacles is complex. One scientific view begins 500, 000 years ago when massive sand dunes built up in the interglacial windy periods. They were rich in calcium carbonate; broken down seashells and marine life.

Between interglacial and glacial periods heavy rainfall dissolved the calcium carbonate where it sank to the bottom of the dunes as a layer of limestone. Sometimes tubes were formed and filled with sediment, pebbles, plants and roots that cemented together. Over time, coastal winds removed the surrounding sand, leaving the compressed limestone pillars exposed to the elements.

Another quirkier interpretation is that the pillars are calcified trees from an ancient forest. As the sands shift, some are exposed and some are hidden. [10]

Even more mysterious is the indigenous mythology that has a Picnic at Hanging Rock scenario.

Since ancient times, the Yued people of the Noongar language group have lived in this area. As told by a Yued elder, his people called the pinnacles area,

Werinitj, or Devil Place. Because of its sinking sands, the young men were warned not to go there as they would disappear. But as with many young people, they didn't listen to their elders and they vanished in the dunes. The pinnacles are their fingertips, trying to grasp hold of something or someone, so they can drag themselves out of the sand. [11]

Some travellers just drive along the track through this geo wonderland, but it begs you stop. To stand. To breathe. To listen. To look. And breathe again. To watch the wallabies and posing galahs. To touch the limestone sheaths and be imbued with their stories.

Author, Marele Day, in her feature article, *The Edge of Darkness* describes her encounter with the bush at night in immersive, sensory imagery. 'Stars twinkled between the dark clumps of leaves, mirrored by the soft green luminescence of thousands of glow-worms scattered across the forest floor. I felt perfectly safe, at rest in this world pulsing with light. I became conscious of my breathing, imagined the respiration of trees, the soft sleep-breath of unseen bush creatures, the benign breath of life.' [12]

It's my own walk through the bush at Kariong, a name that means 'meeting place' in the local Darkinjung language, on the Central Coast of NSW that immerses me in the bush, but, as always, there's the endgame of my connection to rock.

Fortuitously, for my purpose, it's raining again. Taking a break in the showers, I head down a stony clay track. It leads me through a bush gallery as rain drops bead like kaleidoscopic gems on the drooping needles of she-oak, and where cicadas serenade in their ear-piercing way, their crescendo and decrescendo wielded by the baton of Mother Nature.

Banksia candelabras spot the bush, punk-haired grass trees throw up their spears and scarlet Mountain Devils splash colour.

The way is marked by scribbly gums - *Eucalyptus haemastoma*, their parchment trunks a manuscript for the russet writing of moth larvae. I pass one scribbly gum where the gunmetal bark is peeling in fingers. I nickname it the Hand of God after Michelangelo's masterpiece, the Creation of Adam; it's nature's fingers of connection.

I come to the end of the track at the Bulgandry Aboriginal Engraving Site (a corruption of the original, Bungary). The Hawkesbury sandstone outcrop is bound and protected by a wooden boardwalk.

With more than 65,000 engraving sites in New South Wales, I've come to a landscape within a landscape.

There are a few people here. Observers. Voyeurs. Bush walkers with their notes in clear plastic bags protecting them from the rain. All paying homage to the carver-crafters who, thousands of years ago, knelt at this community site with their stone tools and etched their natural and spirit lives into this rocky canvas.

There are 17 engravings of wallabies, fish, eels, octopus, a canoe and a beautiful woman hunting a kangaroo. The recent rain pools in the grooves clearly outlining the shapes giving clarity to their carvings.

Bulgandry is the name given to the ancestral hero depicted here whose engraving is the most spectacular aspect of this site. It's the story of Biayami, father and creator in Dreamtime legend. Carved into the rock, he stands with his arms outstretched, the sun's rays beaming from his head. With the interpretation of Gavi Duncan, the Aboriginal Cultural Education and Tourism officer with the Darkinjung local aboriginal land council, Bulgandry Man holds in each hand, the moon and the

morning star; the belt carved across his waist is the belt of life - much like our umbilical cord that connects us to our mothers and leads from the spirit world into the physical world. [13]

Australian poet, David Campbell, nuanced in his poem, *Rock-Engravings*,

‘It asked for more, and fish poured from the rock –

A lizard on one’s back –

And the dun bush broke into flowering song

And like those olive birds my spirit drank.’ [14]

It’s when I meet Laurie Bimson, a Guringai man from the Garigal clan, that my connection deepens on first seeing that stingray carved on the sandstone rock at the edge of the Hawkesbury/Deerubbin River near Brooklyn that early Christmas morning of 2020.

Laurie is showing a friend and me some of the engraving sites along the peninsula of Sydney’s West Head. He’s the proud great, great, great grandson of Bungaree, leader of the Guringai tribe at the time of European arrival.

In a Welcome to Country, we sit with Laurie on a rock. He takes a little stone mortar out of his backpack and grinds some white ochre. We follow his lead and anoint ourselves on the face - to see, on our hands - to feel, and on our feet - to walk with respect. As the ochre dries, I can feel the elements on my face. The connection to Country.

I mention the stingray on the stone that has so intrigued me and Laurie looks at me surprised, but not surprised. He tells me he is saltwater people and river people. And his totem is the stingray.

A goanna crosses our path and scoots up a rough-barked eucalypt. It watches us, as it grasps the trunk with its grappling hook claws, camouflaged by its bush-

jewelled skin. The goanna's rough-barked tree is a man's tree, Laurie tells us. He points to a nearby angophora. Its sap flows red and raw. 'That's a woman's tree,' Laurie points out. 'It bleeds.'

We follow Laurie along a track to Red Hands Cave. He tells us that in the Kuring-gai National Park there are at least 1000 sites of significance. That the tracks we're walking on are old walking tracks from ridge to ridge. His people's walking tracks where every kilometre there are carvings, much like signposts, many of which can no longer be seen.

The Red Hands Cave is a rock overhang. Against the crystal bands of sandstone, the red-ochre stencilled hands, estimated to be around 2000 years old, take my breath away.

'It's the calling card for the mob,' says Laurie. 'It was welcoming others on the walking track.'

Laurie takes us to The Basin Trail. The sandstone outcrop before us is like a horizontal art gallery wall. He shows us how engravings were done. He finds a hard stone and pecks small holes into the softer sandstone in the shape he wants. Then he grinds from peck mark to peck mark, creating the outline. Like a child joining the dots in a colouring book.

He stands before an engraving of a man with outstretched arms. Laurie stretches his arms and lets the sun fall in shadow.

'This carving was done in the second week of October at 2pm,' he announces, with the confidence of a soothsayer. With our perplexed looks Laurie explains that it would be the only time that the shadow falls in the exact shape as the carving that would have been chipped and grooved in the manner he showed us.

Archaeologist and conservationist, Neil Oliver, of the *Coast Australia* history series comments, 'The Australian story is unique. It's tinged with the European story, but it's also formed by the personality of that great depth that runs back through the human lineage.'

Standing in this geographically beautiful area it resonates how much a tiny blip I am on the landscape when surrounded by the rock art of the oldest living culture on Earth.

It makes me question my place ... in the world ... with nature ... within time and space ... spiritually, emotionally, intellectually.

It makes me tread softly on Country.

...

Christmas afternoon, 2020.

After a morning of rain, of etched stingrays and introspection, my granddaughters bundle through the front door and make a beeline for the Christmas tree ringed with wrapped presents.

The three-year-old then heads to the dolls house to create make believe stories while the eight-year-old squats on our slate floor and fingers the fern that is fossilised there. She asks about dinosaurs, with the same intrinsic fascination she has for fairies and unicorns.

I tell her about ancient sea floors and fossils, and mud and ferns, layer after layer, all pressed down. I watch her face as one universe is in the act of counteracting with another.

She goes to my rock collection on a shelf beneath a photo of her at a scarred tree in the bush near our house.

My granddaughter is not the eight-year-old Scout Finch that I was running free through the bush day in, day out. But she is inquisitive.

She examines my rock samples, the schist from the glaciers in New Zealand, the basalt from the volcanic dyke in Kiama, potch from Lightning Ridge, an amethyst geode formed within volcanic ash layers, granite from the quarry in Moruya where my grandfather mined before working on the Sydney Harbour Bridge pylons, and the 400-million-year-old cephalopod collected in my travels.

'I have a special present for you,' I say, handing my granddaughter a fist-sized piece of grey pumice. 'I found it on a beach. It floated on the tides all the way from an Antarctic volcano.'

As she fingers the pumice, feeling its texture and lightness, I can see the cogs turning. She is starting to make her own connection to her place in the world. The circle has started again.

...

New Year's Day.

Nature is not always benevolent. When combining rock and water, it can be like the clash of the gods. Poseidon and Sisyphus. Water and Rock. If you're caught between, it can be deadly.

My swim at Avoca Beach, my favourite haunt on NSW's Central Coast, is short lived. As the waves fall in benign synchronicity along the shore with the clarity of turquoise glass, something feels amiss. Although there is no nor-easter blowing, a raft of bluebottles pulses through the water, their sinuous threads wavering like draglines beneath their inky, cellophane sails.

Not wishing to be stung, I leave the water to explore the rock platform. I jam a notebook and pen into my shorts' pocket thinking I'll write a few images for a poem while I'm there.

The sand, red and sticky, sea-ground from the sandstone cliffs, wedges sharply between my toes. A fascination with the ancient swirls and infused ridges of haematite draws me closer, closer to the rock platform's edge. I kneel to admire the miniature world within a rock pool where beneath its opal shimmer, vermilion anemones nudge purple-spiked urchins.

The suck and swash of wave against rock ledge changes. *Don't turn your back on the sea*, I think as in a split-second-of-sight a sand-filled wave rears over the ledge, and smashes me off my feet. Tumbling, breath held, not knowing air from white water, I feel as if the sandy sea is straining through my eyes. I push my hands in a V in front of my head as I'm thrust towards a slab of rock.

My hands slam into it with huge force as my legs whip around another boulder. Battered and bleeding, I scabble to rise above the water that is now sucking me back towards the end of the rock ledge. I sputter up as the second wave hits. Bigger. Higher. More ferocious. A maelstrom.

It sweeps me up and smashes me into the cliff base. As the water hits the cliff, it rises twice as high and pummels me back over the boulders. Underwater, everything is white. I claw at anything for solidness. Fingernails tearing, skin grating on rock as the water drags me towards death beneath the drop zone.

And then the wave's energy subsides. It dumps me in the tangle of rock edge and bladderwrack. The sea turns its back. It doesn't want me. This time.

References

- [1] Slessor, K 1939. *Five Bells*. Published as the title poem in the collection *Five Bells*. Angus and Robertson
- [2] *Tubowgule – the history of performance at Bennelong Point stretches back thousands of years*. <https://www.sydneyoperahouse.com/our-story/sydney-opera-house-history/tubowgule.html>
- [3] Zalasiewicz, J 2010. *The Planet in a Pebble*. Prologue. Oxford Landmark Science
- [4] Zalasiewicz, J 2010. *The Planet in a Pebble*. Oxford Landmark Science. p.7
- [5] Clarke, A 1997. *The Undara Lava Tubes*. Journal 28. Australasian Cave and Karst Management Association
<http://www.ackma.org/journal/28/The%20Undara%20Lava%20Tubes%20-%20Arthur%20Clarke.pdf>
- [6] Coleridge, S.T 1816. *Kubla Khan*. Published in *Poems*
- [7] Macfarlane, R 2019. *Underland – a Deep Time Journey*. Hamish Hamilton (imprint of Penguin Books. p 4
- [8] *Threatened Species of the Northern Territory – Macdonnell Ranges cycad – Macrozamia macdonnellii*
https://nt.gov.au/data/assets/pdf_file/0008/376271/macrozamia-macdonnellii.pdf
- [9] Winton, T 1993. *Land's Edge*. Picador (Pan Macmillan Australia). Pp. 4- 6
- [10] *The Pinnacles Western Australia*. Geology Page
<http://www.geologypage.com/2016/05/the-pinnacles-western-australia.html>
- [11] Smith, A – Department of Biodiversity Conservation and Attractions. ABC Australia
<https://www.youtube.com/watch?v=kICNSiIU3yU>
- [12] Day, M April 2002. *The Edge of Darkness* – feature article in *The Weekend Australian*
- [13] Duncan G, Darkinjung local aboriginal land council.
<https://ictv.com.au/video/item/7327>
- [14] Campbell, D. 1970 – 1972. Rock-Engravings from *Devil's Rock and Other Poems*
- [15] Private communication with Laurie Bimson – Guringai man, descendent of Bungaree, leader of the Guringai tribe at the time of European arrival. Traditional

custodian of World Heritage listed Ku-ring-gai Chase National Park and leader of Guringai Aboriginal Tours. <https://www.guringaitours.com.au>