Walking to Connect with Nature and Respond to Anthropogenic Climate Change

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Ву

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PREFACE

The walks in this book took place in Dharug Country in the lower Blue Mountains, after the catastrophic fires of 2019–2020 and the floods that preceded the global pandemic. The Dharug nation is a language group of First Nations Australians, who are the traditional custodians of much of what is now modern-day Sydney. There are many ways of spelling the name due to the complex intermixing of Aboriginal communities, which relates to the other focus of the preface – the idea that we are all in this together, drawing on an Aboriginal elder's statement discussed in detail below.

The Dharug territory includes the Cumberland Plains area in Western Sydney, stretching from Wisemans Ferry in the north down to the Camden area in the south. It also extends into the foothills of the Blue Mountains in the west and the Hills District to the east. It has also been recorded that the Dharug occupied 1800 square kilometres of land extending along the coast from the Hawkesbury River in the north to the Georges River in the south and inland to the present towns of Campbelltown and Camden.

There has been extensive debate about which group or nation these 29 clans belong to. It is generally acknowledged that the Eora are the coastal people of the Sydney area, with the Dharug people occupying the inland area from Parramatta to the Blue Mountains.³

They lived in Redfern and surrounding areas for more than 40,000 years before the European invasion. Material excavated from the Alexandra Canal in the 1960s and middens along the Cooks River are evidence of their occupation in the area.

The local and the global: We are all in this together

I acknowledge that all the research and walking that I have undertaken to write this book were carried out on Dharug Lands, and I recognise their

¹ https://dharug.dalang.com.au/plugin wiki/page/introduction

² https://www.cumberland.nsw.gov.au/history-and-land

³ https://www.sydneybarani.com.au/sites/aboriginal-people-and-place/

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continuing connection to lands, water, cultural practices and community. I acknowledge their present and future elders, who will pass on their practices of caring for Country to others in their community who will continue to care for Country. This book is about learning from the specific local context of Dharug Country after the catastrophic fires of 2019–2020 that alerted the world to a climate catastrophe of a scale previously unknown. It is not only in Australia that these climate catastrophes have occurred. There have been wildfires and tornadoes in the United States, melting ice in the Antarctic and more frequent climate catastrophes all over the planet.

The wildfires all over the world are explored in chapter 1. For everyone in these places, including Australia, the main thing people can do is build community, support each other to deal with the trauma and plan any positive action they can take to recover themselves and their lands (or in Aboriginal terms, their Country). The notion of Country includes everything that makes up Country, including trees, plants, animals, wildlife and the structure of the terrain itself. The notion of Country is further explored in chapters 1 and 2.

The necessity to build community has been very apparent in relation to the small children in the Early Learning Centre⁴ because, unless there is a sense of community, they can feel hopeless in the face of catastrophic fires. A sense of community can be established in the Centre by educators and children working together to share their experiences. Aboriginal elder Uncle Greg expressed the idea of us all being in this together perfectly when he opened the children's art exhibition, which presented all the artworks the children had produced in our project about learning planetary literacies through bushfire recovery and regeneration after many of them had been traumatised by fires.

Uncle Greg opened the exhibition by asking the 800 parents and children in attendance to put up their hands if they had connections with Scotland or Ireland. Many of the people in the room raised their hands, including myself, and he explained that he also had connections with both Scotland and Ireland, and that Aboriginal peoples are also interconnected right across the Country. He frequently repeated, in relation to the fires and following floods, that "we are all in this together". This idea seemed so crucial that I thought the idea of us all being in this together, all over the world, was an appropriate concept to frame a book.

This book about walking in Country to learn about climate change is an attempt to embody this concept. The book explores the relationship of anthropogenic climate change to planetary wellbeing, how people all over

⁴ Western Sydney Early Learning Centre, where some of my research has been carried out

the planet can reconnect to the Earth in the places they live, and how we can learn from the deep-time formation of the planet.

In the specific local context of the catastrophic Australian wildfires of 2019–2020 precipitated by anthropogenic changes to the world's climate, it invites the reader to share my experience of walking in deep time in Dharug Country through a full seasonal cycle for the healing of myself and our planet. My hope is that this walking can be replicated anywhere and that others will share their experiences through the Planetary Wellbeing and Human Learning research program in the Centre for Educational Research at Western Sydney University (2022).⁵

The Centre focuses on supporting research around the world to connect our different locations and cultural backgrounds, explore climate change and planetary wellbeing and join together to make the world a better place for the planet and its human inhabitants in this time of anthropogenic climate change. The hope is to connect globally, with everyone walking in their local places, just as my walks took place in Dharug Country, which is next to my home in the lower Blue Mountains of Western Sydney. The following explains the exact location and connections of Dharug Country, with access to an online map of Aboriginal communities so readers can get a sense of the specific locations and connections between different Aboriginal communities all over Australia.

The location and history of the Dharug Nation

The Dharug nation is a language group of First Nations Australians and are the traditional custodians of much of what is modern-day Sydney. (Dharug is also spelt without an h, but when I asked my Dharug collaborators, I was advised to use Dharug with an h, so where it is my own writing, I have tried to use "Dharug", but where others' words are included it is sometimes "Darug"). This illustrates one complexity of accurate representation. However, I found that I learnt more from this research, which was helpful to my own thinking, especially about the Dharug peoples' relationship to Country.

The territory includes the Cumberland Plains area in Western Sydney, stretching from Wisemans Ferry in the north down to the Camden area in

⁵ In 2023 this program continues as the Institute for Interdisciplinary Research into the Anthropocene. https://iiraorg.com/planetary-wellbeing-and-human-learning/

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the south. It also extends into the foothills of the Blue Mountains in the west and the Hills District to the east.⁶

The occupied 1800 square kilometres of land extending along the coast from the Hawkesbury River in the north to the Georges River in the south and inland to the present towns of Campbelltown and Camden. (Cumberland City Council). There has been extensive debate about which group or nation these 29 clans belong to. It is generally acknowledged that the Eora are the coastal people of the Sydney area, with the Dharug people occupying the inland area from Parramatta to the Blue Mountains.

They lived in Redfern and surrounding areas for more than 40,000 years before the European invasion. It was this information that fascinated me because of my research with my Dharug colleagues about their great-great grandmother, which I include below.

Having worked with archaeologists identifying occupation dates from middens in other places, I was also excited to read that material excavated from the Alexandra Canal in the 1960s and middens along the Cooks River are evidence of their occupation in the area.

Beginning with Country

Leanne begins her storytelling with a description of the painting she had brought to acknowledge Margaret's 'caring for Country'. The painting was a way for Leanne to show her connection to her traditional Country, close to the site of her forebear Maria Lock's birthplace, and explain her clan connection



Fig. 0-1 Buruberongal Country by Leanne Tobin

⁶ https://www.cumberland.nsw.gov.au/history-and-land, Cumberland City Council.

Arriving in Sydney and learning their inheritance

Leanne: It's quite a significant place, that area for us, so that's what that painting is about. The concentric circles represent gathering places, so that's where the different groups, our groups, would come together along the river there, to camp on the river, and these are all connected. I remember coming down from the Northern Territory after finding out about our connection to the traditional people from Sydney, the Dharug. Maria Lock is Yarramundi's daughter. Yarramundi is a tribal elder from around the Hawkesbury River, a koradji, a storyteller and medicine man, with an important role in the ceremonial life of the Buruberongal people, a clan of the Dharug.

The Dharug peoples occupied the Cumberland Plains due to the activities of the great-great grandmother of my Dharug friends, who explained her significance to them in an oral history interview. Leanne explained a painting I have on the wall of my living room, which I bought from her to support her creative art-making activities. All the elements of Country reveal the story to Leanne to enable her painting as there is no separation in Country, including the fence and buildings present at the time. It also includes all forms of life, and the presence of birds signifies powerful emotional and physical connections, which Leanne expresses in her painting



Fig. 0-2 The Humble Petitioner by Leanne Tobin

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of the dying peewee.⁷ She relives these emotional connections as she tells the story of the painting, sometimes with tears.

The following is how Leanne explained the painting to me, and I learned so much from it I did not know previously. It continued to be important in my walking to have such a strong sense of connection to this Dharug Country through Leanne's story, which also acknowledges the difficulties of colonisation for all Aboriginal peoples. Maria Lock was particularly important as she bridged the time between colonisation for her peoples by learning to write in English so she could petition for the granting of land. This had been promised but withdrawn, and eventually provided a place for her displaced Dharug peoples to settle. The following is how Leanne taught me about this time for her people by explaining the painting in detail.

Leanne: So, I'll just go into this part here (pointing to the painting), where we came in. The bird, once I saw the bird there, that was something we all saw and felt deeply. It was disheartening, and then seeing the rabbit take off, it was all fenced, with 'Private Property' written up there. It's exactly like that, that I've got there in the painting, with graffiti over the top of the sign. Then across the road we walked to Bell's Creek.

On the other side of the road is where the actual block, the land grant that Maria Lock was given. It was her brother Colebee's and an Eastern Creek elder Nurragingy's land grants next to each other. Land grants were awarded for their 'service' to the government at the time. Maria ended up moving over there from Liverpool, with Robert and with her children, so she was living across the road from the Native Institute. She had been busy writing letters requesting the land, that's why I've got her as a humble petitioner, writing those letters. They are letters we have as evidence today that have helped us know about her ... I guess the whole painting; I've tried to put a massive big story on there.

She's older in that picture, she's got the possum on her shoulder, which is symbolising her totem, one of our totem animals, representing all the Dharug. And, looking over to where she's come out, I've purposely put a break in the fence so it shows that break from being in prison. Behind the fence I've put representations of the Native Institute, which originally was at Parramatta, so up the top there, with the spires, that's St. John's Church, where she was actually married, her and Robert Lock.

While the full length of the walk led to the Yarramundi site, I could only walk all the way if I had someone to pick me up on the other end as the 26-kilometre-return walk was too much for me. The times when I did walk the full length with someone picking me up was a new and different experience

⁷ Magpie lark. In the bottom left-hand corner, inside the fence.

from my usual walk of turning around at the halfway point, but it was also part of the whole exploration. However, I was always aware of this important connection, having learnt so much about the significance of Maria Lock to the sense of identity for my Dharug friends and collaborators; it was present for me in my walking.

Jacinta, Leanne's sister, a singer, songwriter and language teacher, also explained the significance of Maria Lock and her ongoing learning about her culture, which had previously been denied to her. I empathise with Jacinta through singing in Country, which I love to do, so I began with her Yarramundi song when we sat on my lounge to record the interview.

Margaret: It's good that you felt strongly about Yarramundi; it was one of the songs that we learned at your community singing, dancing and language class, in combination with all the other songs that the group performed, singing and dancing themselves into language and Country in the tradition of women passing on knowledge of Country through song, dance and ceremony.

Jacinta: Yes, because that was the first song that came out.

Yarramundi

Yarramundi, he used to live at peace in this land.

Around the Hawkesbury he roamed, this whole place he called home.

And his songlines are still growing on.

Yarramundi, Guess what? The colour's nearly gone.

A whole heap are dead and some family white wed.

But your bloodline

Yeah, we're still livin' on

Yaa-----Yarramundi

We poisoned the rivers, I'm sorry, polluted they may be.

The times have all changed.

I wish we could take some responsibility.

cos Yarramundi, I never dreamt it would be this extreme

'cos people are tryin' to tell me.

I need insurance and diamond rings

Yaa-----Yarramundi

yeah, we're hummin' on and livin' on and hummin' on and livin' on and hummin' on

Yaa-----Yarramundi

His people had smallpox, but Yarramundi knew, he knew the ancient ways. The secrets aren't dead, we've gotta find them in our head,

oh, Yarramundi, please lead the way

Did you understand about energy? Did you?

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Did you use your heart with your brain? You didn't need technology or complexity. and your pain – yes it still remains. Yaa------Yarramundi

Yeah, we're hummin' on and livin' on and hummin' on and livin' on and hummin on and Yaa------Yarramundi

I tried to walk in your shoes but your shoes, your shoes got too many thorns. cos developers have got your land now and your walking tracks no longer are worn,

but Yarramundi, you used to live at peace in this land.

Around the Hawkesbury you roamed this whole place you called home, and his bloodlines yeah, we're still livin' on Yaa------Yarramundi

Yeah, we're hummin' on and livin' on and hummin' on Livin' on and hummin' on and Yaa------Yarramundi
Yaa------Yarramundi⁸

I know that Jacinta is constantly involved in activities to support the Dharug language and learning and wonder how this is related to her heritage.

Margaret: How has your heritage influenced what you do? You do so much in terms of teaching language, your singing, your song writing, but also all these massive activities that you're doing at the moment.

The gendered tradition of passing on knowledge about family lines and connection to Country

Jacinta: So, the family line comes from my mother's line, so my mother actually has a stronger connection to Prospect, so her mother, her mother, her mother, her mother, were all from the same line around the *koradgi*, which was the Prospect people. And they married in the Buruberongal, so Granny Lock, nee Castles, married William Lock ... or ... I've forgotten which Lock it is, but that's Yarramundi's grandson, married Borun's granddaughter, and I suspect it was Old Way organised 10 because

⁸ Transcribed from Torpey, Julia "Goobeda Dijin: Jacinta Tobin". https://deepeninghistories.anu.edu.au/sites/music-day/play.php?UUID=e3cbd058-235a-43d2-afbc-b1a6ab81c28b

⁹ A suburb of Sydney

¹⁰ Traditionally arranged marriage.

that still happened and that's how our family line came to be, so two *koradgi* married.

Now Maria, that's Yarramundi's daughter, the stuff I loved about, so when I first, not the first, because Auntie Gladdy Smith when I was little, when we came down from Darwin, Cyclone Tracy 1974, so I'm five at the time, so my first introduction into culture was Uncle Teddy Moore, and he was a music guy. So, Uncle Teddy, Uncle Billy and, I've forgotten which other uncle, none of them could read and write, but they all could play instruments, so they used to swap the squeezebox, the guitar and the drums, and they used to swap them around when they got bored, and they used to play at the Log Cabin¹¹ at um, on the river. So that's my music side, so that was the first introduction, and he was living with Aunty Grace, that's mum's sister.

So then, from there, we got to meet Aunty Gladdy Smith. Aunty Gladdy was the spook of spooks. I loved her dearly. I taped her but I don't know where that tape went, before she had dementia. She told me about this time in my life, you know, she certainly did, and mum reminds me, cos mum was usually there when we were getting our readings done, and Aunty Gladdy would dob you in for stuff you didn't want mum to know and you'd cop it as you drove down on the freeway from Toongabbie. So, I was more influenced by Aunty Gladdy, where the others would say that Aunty Gladdy was too much of a Christian. But you'd meet a lot of the mobs out west, a lot of them are Christian-oriented folk, you know. They're very heavily into the church, and so was Aunty Gladdy.

I'm realising the stuff she taught me was really quite – um – I found a CIA document, believe it or not, and it was talking about transcendental meditation. I didn't know what it was, but Aunty Gladdy used to teach me how to breathe, to slower my breath, to slower my heartbeat so I could stay underwater longer. And that's what I used to do. But I didn't know it was transcendental meditation, cos that's what it is, it's about changing the pulsing of the blood. So, the left ventricle changes in turn to stimulate both sides of the brain and to work more cohesive.

A gendered bodily intervention from Aunt Gladdy

Aunty Gladdy performs a strong gendered role in relation to Jacinta, coming from the intersection of her Catholicism and transcendental meditation. In this way, Jacinta believes that she introduced a practice that changed her brain structure that is likely relevant to her becoming a singer, song writer and musician.

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¹¹ An entertainment venue on the Nepean riverbank.

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Jacinta: Yeah, I know, God love her. So, this is the tricky way Aboriginal people teach. It's not always what people think. And they don't even know they're being taught when they're being taught.

This is very true of my own learning, especially through song dance and ceremony in the desert. There was no explicit teaching, just learning though immersion in Country, ochre painting, singing and dancing and learning through embodied practice.

Jacinta: So that's my connection. I was always a little bit off centre. I spose. Dad called me 'the spook'. So, you know, I see things that the others don't, necessarily. Before Dad died, I told them Dad was dying and they all said I was too emotional. He died within three days. Leanne didn't even get to say goodbye to him. And that's what I wanted. I wanted Leanne to come down to say goodbye to Dad. And they wouldn't believe what I said, because I'm the youngest and I'm too emotional. Instead of 'she's the seer', and that's the sad reality of the changing of the tribes into the western way of thinking, you know. And that is we don't look at that other form of knowing and give it credit. It's just looked at as a little bit airy fairy. Who knows? Science might find there's subtle energy fields or what not.

I am coming to understand there is a whole different world of knowing and supernatural connections for Jacinta that fascinates me. For her, these are important characteristics of Aboriginal ways of knowing and being in the world. This includes subtle energy fields that she believes could be validated by science. We discuss how this notion of subtle energy fields parallels Karen Barad's quantum physics, 12 which has become so popular among posthuman theorists around the world, and how this way of knowing has an ancient history in Aboriginal ways of being and knowing as expressed in ceremony. Ceremony celebrates the coming into being of the land and everything that makes up that Country, including its physical structures, plants, animals, sky, stars, weather, seasons and its humans; as always it is a process of becoming one with Country.

Jacinta: We've done a lot of research about our history and our connection. People still question us, but it is what it is and we are who we are. Where there was a lot of argy-bargy, and still is, about Dharug people, I'm going to look for the strength of the songlines.

Jacinta returns to the present and her ongoing commitment to researching her family history and connection to Dharug Country following their discovery of their Dharug identity. In a return to the cosmos, Jacinta sweeps

¹² Barad is a prominent physicist who pioneered the concept of "agential realism".

again to the stars as she reveals that this involves searching for songlines, the stories in Country that tell of the creation of all things, including the stars and the cosmos. This is possibly the deepest gendered understanding of all.

I am curious about Jacinta's lifelong passion for music making and singing in Country to teach both Aboriginal and non-Aboriginal peoples.

Margaret: When did you start writing music and singing?

Jacinta: We always, the whole family, had music around me from birth; as I said, Uncle Teddy showed me the piano, harp, and other instruments when I was five. And that's my great-uncle Ted. And Dad's side of the family, crazy Irishmen, always playing music as well. And so, I started at university. I always wrote poetry and I always played guitar. At age 11, I was playing guitar, and poetry was just something that I did to release, you know. And then when I started university aged 27, I was encouraged to show my knowledge through different ways than just writing because when they showed me how much reading I had to do, I just burst into tears when I saw the books.

Aboriginal peoples in Australia are connected to many different countries in the world, including Ireland and Scotland, and Jacinta learned through these connections. Everything relates to everything else in Country: peoples, the land and the universe, while Jacinta's gendered inheritance of music making, song writing, and language learning was influenced by many of the women in her extended family.

Jacinta: So, where I went to uni, they encouraged me to do other ways, cos it was social ecology, and it was with Auntie Pearl Wymarra, she was the one who got me involved in it. And I wasn't even thinking I was going to uni; I was thinking I was visiting Aunty Pearl. cos her daughter married my mate from school, Shane. That's how I met Aunty Pearl Wymarra. And Aunty Pearl asked me to go to uni to talk to her cos Leanne was working with her. And what I didn't realise was she enrolled me in uni at the time, and said if you come to uni, what would you do? And I said, I'd teach them about spirit, you know, it's a field of science, I believe. And there's so many people with this form of lifestyle, its ours, and yet it's not even acknowledged in mainstream. And even Unaipon, David Unaipon, the \$50 note fella, ¹³ he used to say, 'How come these white fellas can't get it?' Say, for example, a message stick would come, but from that message stick came so much more because of the energetic field on the stick, I believe.

¹³ David Unaipon (1872–1967) was an Aboriginal Australian inventor, preacher and author. His portrait on the Australian \$50 note honours his significant contribution to science, literature and improvements to conditions for Aboriginal peoples.

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"Spirit" as a gendered practice

Auntie Pearl Wymarra was an important teacher for Jacinta as well as Leanne. As she became more in tune with her special forms of knowing, Jacinta began to take on a strong role in "teaching about spirit". The traditional "message stick," painted with symbols and stories, is a means of communication, and Jacinta explains that the message stick actually carries the energetic field of Country. I include below the conversation with Jacinta so readers can get a sense of this relationship and learn more about Dharug peoples and the times of colonisation.

Margaret: What does Dharug Country mean to you?

Jacinta: That's even bigger again, because once you do music, song, language, and that's where in the last twenty plus years, I've been working with the kids in schools. Others are now doing language classes, coming up, learning language far better than myself, which is brilliant, no drama. Once you have done language for a certain amount of time, it calls you to a stronger connection with Country. And then you realise that you have to work for Country, which we always have. From Leanne, myself, and Chris, we had that. I don't know if it was Cyclone Tracy that we had a healthy respect for nature, but now, so for me, the progression is songline. It's just a natural progression for me, from learning. Because you feel a deeper connection to your culture, to your Country.

And once you start to see that more holistic approach to Country, as in the 3-dimensional sort of mapping in your own mind, of the geology to the stars, you know, and then understanding why those stories are relevant, understanding seasonal change, understanding fire practice regimes, understanding waterway usage, yeah, it just all starts to make sense.

It's like a beautiful puzzle, not just 3-D, but 4-D, 5-D, it's quite an amazing puzzle. I love puzzles, so for me it's just an amazing jigsaw puzzle. That's why when I'm talking to you, I'm looking other ways, because I can see it in my mind's eye, I can picture it. I can travel because Aunty Gladdy told me how to astral travel ... It's something I've been doing since I was a kid. So, when you pull yourself out, and that's sometimes when you've also got to. Sometimes you get caught up in boundaries: "It's mine, it's my boundary" and then you think "Oh my god I was just up in the stars – and this is nuthin! [Big laugh]. Not even the Earth looks big from here". This is crazy business, but then "OK, back into the me". So that's how I work.

¹⁴ Brother to Leanne and Jacinta and also an artist.

Jacinta's way of passing on knowledge is to work with children in schools, with music, song and language because language connects them to Country. She also learned how to astral travel from Aunty Gladdy and practises this by leaving the Earth to astral travel with the songlines that live in the stars. This is very much in line with the deepest traditional Aboriginal stories that begin with the stars and the formation of the planet.

Margaret: How do you see songlines as related to your new songs? I'm really interested in how everyday songs connect to songlines because I sing contemporary songs when I walk in Dharug Country.

Singing in Dharug Country

Jacinta: We know now that a musician's brain is the only brain that can be cut open at death and know that they are a musician. It's the only thing that alters the brain's structure. It creates more audio, it creates cortex build-up, because the two parts of the brain are working together as one. It stimulates both sides of the brain, not just one or the other. And it develops the frontal lobe. And when the frontal lobe is developed, they become a more compassionate person. And I'm wondering if that's what it is.

I am so excited by this explanation of the relationship between the act of singing and music making on the brain of the composer – it is so in tune with the whole sense of song, dance and ceremony as essential to one's becoming in Country.

Jacinta: So that's the natural progression of language. When I went to the Flinders Ranges one time and I sung all my songs, they said to me "Oh that's your songlines"; I said "No, that's your dreaming ... or songs from Country" or something, and in my mind it was like "No, these are in English for a start", and then they were explaining to me, cos I get it now, because the Dreaming is the past, the present and the future, so song is relevant to the now as well as the past as well as the future.

Margaret: I find this the most beautiful and powerful explanation of how all songs can be part of one's becoming in Country because I sing on my walks in Dharug Country all the time.

Jacinta: And one Delabone mob¹⁵ way, he said to me, he said "Jacinta, you gotta keep singing. cos sometimes you get knocked around, and it does get you down. cos thousands of generations have sung for you, for NOW!

¹⁵ Tiwi Island/North Queensland Country

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You've got to keep that song alive for all the thousands of generations to come".

And the idea of keeping that alive is actually keeping that movement of sound on Country, to understand that there's been a connection. Like lyrebird was never told not to teach his child our language. So, the language never stopped in that way of knowing. And so, in turn, that's how I look at it all. It's all relevant. Because I do believe in vibration and frequency. So, you get this developmental frontal lobe, these compassionate people, who sing more. I've got [to] get *The Memory Code*, which I think is a book that talks about how song triggers the memory. You can ask people "What did you study when you were 13?" and they can't remember. But ask them what songs they were playing when they were 13 and they're, like, straight to it!

The Australian lyrebird sings in Country all the time and is known for its ability to imitate not only all other birds but even the sound of human tools and so on in an inextricable intertwining of song and Country. Unlike Aboriginal peoples, who were forbidden from speaking their languages, the lyrebird, of course, was never told not to teach baby lyrebirds their language. It always happened just automatically. Song for Jacinta works in this same way as a means whereby the language of song cannot be forgotten but recalls all past events.

Creative arts and singing as effective modes of gendered communication

Jacinta: And not only does it just generate a memory, and the smell of an area, but also an emotion. Certain emotions come around a song as well. So, it's a whole embodiment of life. But let's think about it as a vibration. So, it is a holistic understanding. It's not linear. I actually believe writing is dumbing us down. I'm serious, I'm deadly serious! And, how many texts have been sent to people, and how many fights have happened? Because it's not vocal, it's a text, and can be read in many ways.

Margaret: The reason I was thinking about singing is because when I walk on the ridge on the track that leads to Yarramundi, I ask the river and the ridge to give me songs. They're not necessarily sacred songs or anything like that, they're just any song that comes up when I put the name of a plant or an emotion into my phone, which I use on the walk to take photos and make notes. One day, a glorious golden wattle was newly in bloom and I put

¹⁶ Kelly, Lynne, 2016. Explores how non-literate societies read the landscape. Crows Nest: Allen & Unwin.

"golden wattle" into the search, and it came up with the "Golden Wattle" song.

Jacinta: Yeah, what time was that, because what is teaching you is that song, but it's time structure, and that's the importance of song. So, you would do an increase ceremony in your own way, with your song.

Margaret: So, an increase ceremony is when a ceremony is held for a particular plant or animals to increase their wellbeing in Country? So, my singing of the golden wattle song sings the golden wattle into being. So, your answer is perfect.

Jacinta: Well, this is it, that ancestors, Yarramundi, I believe, were responsible for my Yarramundi song. And I was just a vessel for that song. And we're only vessels anyway cos we're just like that [clicks fingers] in time. And so, I do believe that this constant song is so relevant to Country, so relevant to the Earth. What happened in mainstream – they forgot it, or they were encouraged to forget it. And only a small chosen few still remember.

Margaret: Well, you know that I've just started writing a book about walking on the ridge, and the first thing I've put in – and I'll get permission from you – is that I'm walking to Yarramundi. I'm heading to Yarramundi. And so, I put in your song.

Jacinta: It's called *Murumak* here cos it's a pathway to the mountains.

Margaret: Murumak. Muru, mountain, Mak, path.

Learning this Dharug language word for the Country where I walk, a long ridge in the lower Blue Mountains west of Sydney, completely transformed my experience of my walk in Dharug Country.

Jacinta: Cos at Yarramundi you can walk across the river, *Bulga*, that was documented.

Margaret: That's really interesting. If you look up the Lapstone monocline, which is what that land formation is, it rose up out of the plain about 22 million years ago.

Jacinta: Well, *Dyarrubin*'s been here since Gondwana. I love it. This is how ancient we are. People don't get it, with our ancientness. Yeah, we might not have been here in human form, but that's also limiting our intelligence, in one structure. That's been the problem. That's the biggest, most arrogant human thing that's come on the Earth – is this arrogance that we're the only thing that has any intelligence.

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This is such a powerful thought that is also recognised by other Earth scientists; we are not isolated beings but part of all the structures of the world – nothing is separate.

Margaret: Yeah, and that stuff about the river is really interesting because it was there in the beginning and flowed through and made its way.

Jacinta: And why the song changes now because Boral [Quarries] actually changed your water course here. The river didn't always go this way. Here at Emu Heights, Boral actually came and changed the course of the waterway. What you see of Country here now is not what it was before. And this is where it's important to understand that the 21st-century song is just as important as the 1st- century song. Because it's all connected.

We are coming to the end of our agreed-on time, so I ask: Is there anything else you want to say about Dharug Country?

Jacinta: I think too that we need to heal Dharug Country. Because we were the first hit, and so if we can heal Country this way, and bring back that songline connection, that strengthening of all our different understandings, and show respect to it, because there's no use us knowing if the mainstream doesn't have respect for it, that's the problem. But if we can do all that, then we can actually heal, and once we start to heal, the rest of the country will heal. Because there's no use healing all these other mobs around the country until ceremony is done right. And you go to the beginning of the pain. Not the edges of, y'know, band-aid business.

Jacinta and I have talked at other times about how Dharug people need to heal Country by revitalising ceremonial practice in Country, but I understand how incredible busy and in demand Jacinta and her sister Leanne are to undertake this kind of work.

Margaret: Mm, yeah, and that's your frustration, isn't it, that you're so busy with everything else, that you're not having time to reinstate ceremony.

Jacinta: Yeah, well I think, I've asked the Reconciliation people to help change the law so that Country has its own rights. Just like New Zealand and South America. It's very important because right now there's a whole heap of people, good people, fighting for Country. It's a time waster. So, there's that part, and then the other part of it is continuing culture cos there's no use talking about having a nice painting or a dance if you're not doing it. I get frustrated with that. And so that's why we need to live on Country and practise. I'm a doer. I think it's very important for the health and safety of the people and the country. Because if we're doing things the right way, we're burning Country at certain times, respecting water, learning our

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totems' needs and ways. We all need to come together. No-one has all the songs; everyone had many different ways of knowing.

Through these conversations I was taught a great deal of gendered knowledge of Country, including the ways that Maria Lock spanned the time before and the time after colonisation. I learn that re-connecting to Dharug Country is key, and that Leanne and Jacinta pass on their knowledge to me through their different creative practices of art and music making. It is also a gendered responsibility to create reconnections and healing when they have been lost. It is a gendered practice to revitalise song, dance and ceremony to recreate these connections to the land and everything in it. I learn that ancestral connections are important and can be revitalised through gendered creative practices, which moves into Indigenous cosmologies: when Leanne's painting takes its own direction and Jacinta astral travels with her musician's brain and connects to songlines, and new stories and songlines are created that move into a different future, through these important practices that bridge colonial and postcolonial times.

ACKNOWLEDGEMENTS

There are many Aboriginal peoples all over Australia who have been significant in my learning. I will return to the beginning, when I returned from the desert to live in Armidale and Patsy Cohen asked me to help her record the story of her removal as a child from her home in Ingelba and recover the story of Ingelba by documenting the knowledge of all the old People who had ever lived there. This was produced as a book, which recorded the oral history of Patsy's story and the stories of five black matriarchs.¹⁷

After this there was a project in Coonabarabran with archaeologist Wendy Beck and five older women from Coonabarabran, published as 'The Sun Dancin'. ¹⁸ There have been many others, which are acknowledged in the chapters of this book. After my move to the lower Blue Mountains, it has been my Dharug friends, and many readers, including Sarah Powell, who have been the most wonderful and supportive readers. Others who have been equally helpful and supportive include Susan Germein and Kerith Power. It is also important to me to acknowledge the support of the local Bushcare regeneration group and the incidental support of kind people who live over the road, Adam and Bronte, whose kindness has been important. They have been very interested in discussing the walks and introducing their children to knowledge of their local Country.

I feel very blessed by all these people and my editor, Lisa Hill, whose confidence has kept me going. The people I work with in the Planetary Wellbeing and Human Learning Program, Susan Germein and David Cole, have also been supportive.

All these people subscribe to the theme of this book, "We are all in this together," and are coming together for the healing of our planet in this time of anthropocenic climate change.

Thank you and best wishes to you all, Margaret Somerville.

¹⁷ Cohen, Patsy and Somerville, Margaret. 1990. *Ingelba and the Five Black Matriarchs*. North Sydney: Allen and Unwin.

¹⁸ Somerville, Margaret, Marie Dundas, May Mead, Janet Robinson. 1994. *People and Place in Coonabarabran*. ACT: Aboriginal Studies Press.

CHAPTER ONE

THE NEW LOCAL AND GLOBAL CONTEXT OF ANTHROPOGENIC CLIMATE CHANGE

While this book explores the relationship of anthropogenic climate change to planetary wellbeing and how people all over the planet can better connect to the earth for healing themselves and the planet in the places where they live, it also addresses the question of how we can learn from the deep-time formation of the planet. Understanding the planet's formation can be a source of deep connection, and in terms of ongoing learning from walking, it is especially interesting in the ways that the land is not only formed once but is in a continual and ongoing process of formation. This is evident in the experience of Aboriginal peoples of the Ice Age, which they have told me about in their stories about particular locations in their traditional Countries.¹⁹

I research deep time to find out the scientific story of the ice ages so I can determine when and why these might have taken place. I have learned that an ice age is a long period of reduction in the temperature of the Earth's surface and atmosphere, resulting in the presence or expansion of continental and polar ice sheets and alpine glaciers. Earth's climate alternates between ice ages and greenhouse periods during which there are no glaciers on the planet. I have also included relevant information from Dharawal Elder Aunty Frances Bodkin's research about climate change, including her methodology and further knowledge about the Dharawal understanding of the seasons through Dreaming stories, including the times of day and larger seasonal understandings. This is published in several of her books.²⁰

 $^{^{\}rm 19}$ https://theconversation.com/ancient-aboriginal-stories-preserve-history of-a-rise-in-sea-level-36010

²⁰ https://dharawalstories.com

Drought, wildfires and floods

I became even more fascinated to learn about research from the University of Melbourne into what causes an ice age to end, and that major fires are an increasing risk as the air gets thirstier. I thought about the combination of drought, wildfires and floods that have characterised my experience of walking on *Muru Mak* over the past 12 months. I think learning about deep time can teach us not only about the wonders of the formation of the planet but also about the planet's resilience over time.

This same study went on to tell me more about the deep-time research that has been conducted all over the world. "Colleagues from the University of Cambridge and Portugal's Instituto Português do Mar e da Atmosfera compiled detailed records of the North Atlantic's response to ice-sheet collapse," said Associate Professor Russell Drysdale, from the research team (Bajo, 2020). I am most excited about the research that explores stalagmite growth because of how I am constantly drawn to rocks on my walks on *Muru Mak* and my abiding interest in lithics and the way that the whole of *Muru Mak* is made of rocks. This was revealed repeatedly on my walks.

We could identify in the stalagmite growth layers the same changes that were being recorded in the ocean sediments. This allowed us to apply the age information from the stalagmite to the ocean sediment record, which cannot be dated for this time period. (Drysdale, in Bajo, 2020)

This information stimulated further environmental learning. I did some more research and discovered that stalagmites are produced by layers of calcite crystals that stack one on top of the other in caves if nothing disturbs the growth. However, scientists, knowing that such caves are significant places for Aboriginal people, point out that there were many disturbances in caves as they were used for living places, and many of them have remarkable ancient cave art. There are many ochre paintings in the caves along the banks of *Dyarrubin*, the Hawkesbury River, that show handprints and animals dating back millions of years. More information is contributed about planet Earth's formation over those millions of years.

Using the latest techniques in radiometric dating, the international team determined the age of two terminations that occurred about 960,000 and 875,000 years ago. The ages suggest that the initiation of both terminations is more consistent with increases in Earth's tilt angle. These increases produce warmer summers over the regions where the Northern Hemisphere ice sheets are situated, causing melting. 'Both terminations then progressed to completion at a time when Northern Hemisphere summer energy over the

ice sheets approached peak values,' said Dr Drysdale. 'A comparison of these findings with previously published data from younger terminations shows this pattern has been a recurring feature of the last million years. The team plan to have a closer look next at the Middle Pleistocene Transition when the average length of ice-age cycles suddenly doubled in length.' (Drysdale, in Bajo. 2020)

These deep-time explorations remind me of reading about climate change where scientists compare the different geological ages of the planet. It reminds me of the threats of the Anthropocene and all I have learned over time about changes in the Earth's climate and what this means for the natural world. I constantly wonder what this means in relation to global understandings of climate change.

New learning and the Anthropocene

This new learning potentially places the current situation of the Anthropocene in a different position in relation to the deep time of planet Earth. It does not mean that something very dramatic is not happening, but it does tell us that it is happening in the extremity of changes that have occurred over planet Earth's whole ancient history. This is what scientists talk about when they detail the deep-time processes of the planet in the ages, so I returned to the geological time scale for further research.

The geological time scale is a way of representing deep time based on events that have occurred throughout the planet's history, a time span of about 4.54 billion years. The four main eras from oldest to the youngest are Precambrian, Palaeozoic, Mesozoic and Cenozoic. Periods are a finer subdivision in the geological time scale. Then I came across something even more compelling in relation to my fascination with the rocks on *Muru Mak*. When I walk on *Muru Mak*, I am embedded in the Earth's age and geochronology, and it is this that calls my attention to its rocks all the time. It is a combination of cosmology and geochronology. According to the Australian Museum, "The geological time scale is based on the geological rock record, which includes erosion, mountain building and the Earth's age and geochronology". It is this geochronology that is the deep-time constitution of *Muru Mak* in which I am embedded physically and emotionally. This is documented in almost all the chapters of this book.

²¹ https://australian.museum/learn/australia-over-time/evolving-landscape/

Australian wildfires precipitate walking on Muru Mak

In the context of the catastrophic Australian wildfires of 2019–2020 precipitated by anthropogenic changes to the world's climate, I invite you to join me in an experience of walking in deep time in Dharug Country through a full seasonal cycle for healing of the self and our planet. This walking can be replicated anywhere on the planet, and together we can explore the possibility of new research projects around the world by connecting our different locations and experiences through the network of the Planetary Wellbeing and Human Learning research program in the Centre for Educational Research at Western Sydney University, led by myself and Associate Professor David Cole.

The research program focuses on supporting research around the world to connect our different locations and cultural backgrounds and encourage and share research about planetary wellbeing to make the world a better place for the planet in this time of anthropogenic climate change. This might include sharing singing in Country, as many cultures in the world have practices of singing in Country and walking in Country for deep-time-embodied learning.

The new age of the Anthropocene

There has been much written about the concept of the new geological age of the Anthropocene, which has generated a proliferation of transdisciplinary scholarship in recognition of the "human entanglement in the fate of the planet" (Zalasiewicz, Williams, Steffen, & Crutzen, 2010). It has been suggested, for example, that climate change, a signature phenomenon of the Anthropocene, is not only a change of the weather but also requires a fundamental change in how we understand what it means to be human and new understandings of thought itself (Colebrook, 2010). Much diverse inter and transdisciplinary scholarship focuses on this task of decentring the human and seeking new ways to understand the imbrication of the human within the world. While this project focuses on the specific place of walking in deep time to learn Dharug Country at the foot of the Blue Mountains and its link to global understandings, it is youth activists who are connecting everyone on the planet taking direct action about climate change.

Youth activists' global connections

Young people all over the world are expressing their concern about planetary wellbeing in the Fridays for Future youth-led and youth-organised

global climate strike movement that started in August 2018 when 15-year-old Greta Thunberg from Sweden began a school strike for the climate. Her strikes, demanding urgent action on the climate crisis, occurred in the three weeks leading up to the Swedish election. On September 8, they created a hashtag #FridaysforFuture and encouraged other young people all over the world to join them. Their call for action sparked an international awakening, with students and activists uniting around the globe to protest outside their local parliaments and city halls. Along with other groups across the world, FridaysforFuture is part of a hopeful new wave of change, inspiring millions of people to act on the climate crisis.²²

Sandra Kaire, who is an active member of the Planetary Wellbeing and Human Learning group, is a postdoctoral researcher researching young climate activists in Europe, including Germany, Austria, and Lithuania. Funded by her university in Lithuania, Sandra visited Western Sydney University as an Honorary Fellow to share her analysis with me after we had been communicating and sharing ideas by email. Together we analysed her visual and oral story data in preparation for submitting a paper to the Journal of Qualitative Research in Education. Sandra's focus as a leader of education in her institution is on the relationship between the student activism in groups of students across many different countries in Europe. The following includes our analysis to share this research.

Creative practices become symbolic spaces that compensate for what young climate activists in educational institutions are missing. Community-based learning, experiential learning, and the development of transversal skills, like communication, teamwork, leadership, are some of what, according to all young climate activists, is missed and which creative practices in climate activism movement provide. Moreover, creative practices activate, as Verlie (2019) identified, learning to live with climate change. Creative practices become symbolic spaces that compensate for what young climate activists in educational institutions are missing.

According to Verlie, learning to live with climate change involves the appreciation of the entanglement and co-becoming of the human and where affective adaptation accompany this. Meanwhile, affective adaptation is not just coping, resilience or transformation of the self. "Affective adaptation is

²² FridaysForFuture is a youth-led and -organised movement that began in August 2018 after 15-year-old Greta Thunberg and other young activists sat in front of the Swedish parliament every school day for three weeks to protest against the lack of action on the climate crisis. She posted what she was doing on Instagram and Twitter, and it soon went viral.

also the capacity to navigate and work with the emotional and affective responses of others". (2019, pp. 760–761)

"Being with other climate activists and doing some activities together help handle my anxiety towards climate change that I feel so often". (Karl, Germany)

"Planning some actions, activities help to fill up with something that prevents from overthinking, from blaming myself, it becomes self-support". (Egle, Lithuania)

"There is such big wish to be able to express emotions, to have space in the school to do that but usually I feel that there is just ignorance that climate change does not exist ... But what we do in the movement helps to create that space" (Marta, Germany).

The stories of climate activists inevitably reveal the transformative power of creative practices in navigating the emotional and affective responses from oneself, from others and from a more-than-human world. Sandra and I explored a range of photos she had taken in Lithuania and Germany to try to make sense of how to interpret young climate activists' ability to completely change the sense of city landscapes. Her original interest was in their connections with more natural spaces because of their graffiti slogans; for example, *Like the oceans we rise*. After reflecting on their transformations of city spaces, Sandra concluded it was their creative practices that had achieved the transformations.

We presented the images to a group of postgraduate students and educators as part of the activities of the Planetary Wellbeing and Human Learning program. We invited all participants to a "meet and greet" and to participate in the research by telling us to say what they could see in the images. This was such a successful experience for all the participants that it speaks to the transformative power of this work. Many of them said they had experienced a sense of meaning and, especially, a connection that had been lacking.

Others were similarly inspired, and it is this sense of connection and inspiration that I hope to achieve for the readers in this book. One of our current projects, funded by Sydney Water, involves taking the children from the Early Learning Centre to the local creek on campus. The Sydney project involves explorations of the creek and talks by local elders about its Indigenous meanings. A second project explores children learning community resilience in relation to the floods. It is related to the Bushfire project I discussed briefly in the preface.