

*'A wonderful, beguiling book,  
inviting us back home to nature.'*

**Robyn Davidson**, author of *Tracks*

*'A book of uplifting revelations.'*

**Bob Brown**, environmentalist

A silhouette of a bird perched on a branch against a warm, golden background. The bird is facing left with its beak open as if singing. The background is a soft, out-of-focus glow of light, suggesting a sunrise or sunset. The bird and branch are dark against the bright background.

Deep  
Listening  
to Nature

ANDREW SKEOCH



Together with his partner, photographer Sarah Koschak, Andrew established the independent label Listening Earth in 1993 to publish immersive nature soundscape recordings. This work has since taken him around the world, documenting the sounds of iconic landscapes and threatened ecosystems.

The resulting recordings have been published as likely the largest catalogue of their kind; over 100 nature albums available for online download and via digital music platforms such as Spotify, resulting in streaming figures in the many tens of thousands a week.

Andrew's personal yet broad perspective has led to invitations to talk to a wide range of audiences. He was recorded by ABC radio for its *Big Ideas* program, and in 2017 presented at TedX in Canberra. He has been a keynote speaker at academic conferences, and regularly teaches at university, schools and for community organisations.

Andrew is president of the Australian Wildlife Sound Recording Group, a premier association of nature field recordists that encourages skills and passion in a new generation of enthusiasts.

Deep  
Listening  
to Nature

ANDREW SKEOCH

Listening  
Earth

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This book has been written in good faith.

The publisher apologises for any inaccuracies, omissions or lack of attribution, and would be grateful if notified of any corrections that could be included in future editions of this book.

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This book has been written where I now live in central Victoria, in southeast Australia. These are the traditional lands of the Dja Dja Wurrung peoples of the Kulin Nation. I acknowledge their elders and wisdom keepers, and their custodianship of the land over so many generations.

I have been privileged to travel widely, and am aware that many places I've been in the world have similarly been traditional land for First Nations Peoples of one culture or another. Some have long been subsumed into colonising cultures, others continue in the modern world. I wish to thank those from whom we've received hospitality, and acknowledge all who strive to care for natural places and the wild creatures who inhabit them.

For Sarah

who has shared this journey with me

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# Get your Headphones Ready

This book relates my experiences of listening to the natural world. To bring these stories alive and as evidence for the resulting ideas, I need to let you hear what I've heard.

Hence the text is accompanied by audio files, available online. These recordings are in stereo, many of them binaural and conveying a rich sense of space, so headphones will be the optimal way to enjoy them.

Using the link or QR code below will take you to a webpage, with chapter headings. Clicking chapter links will reveal the audio materials relevant for each chapter. Audio files are sequenced as they occur in the text, and as you read, references to relevant recordings are indicated by the symbol: 🎧

You may like to open the webpage on a phone, tablet or laptop and listen as you go, or 'bulk' listen before or after reading a chapter.

However it works for you, listening to these recordings is an important aspect of this book, and will give you the auditory experience that words cannot.

<https://listeningearth.com/deeplisting/>



# Prologue

The aromas of native pine blossom, emu bush and humid earth scent the night air, as I set off on foot in the darkness before dawn to climb a low ridge in the Australian outback. All around, the bush is silent, still, expectant. Unseen, and secretly tucked into shrubs and tangles of foliage, birds are roosting. Are they asleep, I wonder, their bills nuzzled into warm feathers against the cold? Or are they furtively awake, eyes bright and watching the stars above for the first hints of approaching daylight, their signal to begin singing and usher in a new day?

As I begin finding my way up the slope, I reflect on what I hope to achieve here. Sarah<sup>1</sup> and I have come to this place, Mutawintji, in the far west of New South Wales, to pursue a music recording project. In our few years together, we've connected over a love of camping and spending time out in the bush, during which we've discussed ways of shaping our interests into a creative vocation. To this end, we've established a fledgling record label, Listening Earth, with the intention of releasing music inspired by a connection with nature. As a musician, I've been composing classically styled music for acoustic instruments, and our project envisages these pieces being heard in the context of the natural environment. Mutawintji has appealed to us as a suitably inspiring location in which to pursue this idea. So now, after vaguely dreaming of it previously, I am beginning to make my first birdsong and nature sound recordings.

Even in the few days we've been here though, things have not gone to script. Mutawintji is certainly turning out to be a special area; a low range of hills outcropping from the surrounding sandplains, its secluded gorges holding permanent water in rockpools,

providing a haven for wildlife in otherwise arid country. However, the desert is living up to its reputation for extremes. The night after we arrive, a storm front sweeps in, and while making my very first recording, I nearly fry the electrical gear (and myself) when a lightning discharge splits the air nearby. Lesson one for the novice nature recordist; don't monitor on headphones when there's thunder around!

That night, the heavens open and chuck it down. The following morning dawns clear, but my recordings of the usually dry Australian outback feature torrents of water flushing down gorges and stream beds, to flood out across the open plains. While this is sonically interesting, it is not an ideal situation, as the wildlife is following the water. No longer conveniently concentrated in the sanctuary of the gorges, the birds are dispersing out across the landscape. Now I'm guessing the ridge top will be as likely a place as any to try recording the dawn birdsong.

To be honest, I have little idea what I might hear, as I'm still familiarising myself with the local environment. I'm also working out how to make nature recordings with the gear we have. Here at least, serendipity has smiled in the form of a friend able to lend us a complete rig of field recording equipment. This comprises a new generation, portable, digital audio recorder – a vast improvement on the heavy, analogue, reel-to-reel equipment previously available – plus a pair of long, 'shotgun' type microphones. With a highly directional pickup, I am already realising they aren't particularly suitable for making balanced stereo recordings, but for the moment, they are all we have. All this is safely stored in my backpack, along with cables, spare batteries, tapes and a pair of headphones.

I pause, turning to look out across the landscape stretching to the west and dimly visible by starlight. Apart from the ranger station and guest quarters where we're based, and from which I'd set out earlier, there is no human presence to be seen. The open desert stretches away to the horizon. It is palpably quiet.

Arriving at the ridge top to the first flush of pink in the east, I set up the gear. The ground is rocky and open with a few hardy acacias, and the air is crisp and still. From somewhere out across

the plains, a magpie is now faintly audible, warbling a way off. The mobs of corellas which roost in the river gums lining the gorges are also waking, their screeches softened by distance. Perfect timing – the dawn chorus is just beginning.

After listening across the expanse of landscape to these far away voices for ten minutes or so, a flutter of wings nearby surprises me as a bird flits into a shrub. Almost immediately it utters the most entrancing sound; a quick series of piping, flute-like notes, ever so slightly descending in pitch. The song lasts only a few seconds and is hauntingly beautiful. I've heard nothing like it so far and have no idea what species it is. Presently the bird sings again, its voice a warmly-toned cadence in the desert air. Soon, another begins responding from a little way along the ridge, their voices sometimes alternating, at others entwining in harmonious microtones. Further off, I can now discern others; there is quite a dispersed community of these birds singing together across the ridges.

The combined effect of their songs is ethereal. As I continue listening, a sense comes over me of them being so native to this area that they are giving voice to the landscape itself. By belonging to these rocky ridges and gorges, their songs are animating the country, singing it alive. The distant magpies and corellas also contribute, their voices combining to uniquely signify this place. It occurs to me that, as this is a daily happening, I'm eavesdropping on something ancient, essential, timeless. Hearing not only the beauty of my mystery species, but this blending of birdsong born of the land, I feel unexpectedly moved. 🐦

Eventually, another flutter of wings signals my sublime flautist moving off. Then, with a last few calls from further away, I sense the dawn chorus subsiding. Shortly after, I switch off, and sit down for a long time as the light grows, letting what I've heard replay in my memory.

I wonder why hearing the beauty of the birdsong here comes as such a surprise. I've spent so much of my time in the bush. Even though I grew up in suburban Sydney, nature has always been a fascination, and I've been actively birdwatching throughout

my childhood. But of course, this is it; I've been watching. Often using binoculars, I've been referencing field guidebooks to identify species by form and plumage. My knowledge of birds has been entirely visual, not auditory. With my interest in music, I would have thought I was proficient at listening, and perhaps I am – after all, I wouldn't be here recording if I wasn't tuned in to sound already. Yet, I am deeply affected by what I have heard this morning, feeling that an essence of the natural world has been waiting, as obvious as anything, until this moment when I am ready to hear it.

Back at our quarters, I catch up with Sarah. Already, we are falling into roles; myself sound recording while she, the more visual of us, has been out photographing. In letting her hear my recording, I realise that our initial idea of gathering general bird-song ambiences is now gaining the substance of actual species and their characteristic voices. Over the ensuing days and weeks at Mutawintji, I immerse myself in listening, increasingly captivated by what I am hearing and recording.

During this time, we get to know the ranger, Sharon, who lives in the adjacent homestead. She is a sunny spirit with a deep love of the place. The only other resident is Harold, an older Aboriginal man employed doing general tasks around the park. He shares the shearer's quarters with us, and while always friendly, seems self-contained and mostly keeps to himself.

Mutawintji, apart from being an outstanding natural area, is also a site of cultural significance for the local Barkindji Aboriginal people. Before colonisation, for generation upon generation, regional groups had gathered here to feast, share culture and socialise. While their contemporary descendants live mainly in nearby towns, the landscape remains alive with the presence of those ancient peoples, most obviously in the form of numerous, well-preserved rock art and petroglyph sites.

Sharon tells us that Harold knows the park like no one else, walking alone for days to outlying areas in search of forgotten art sites and ceremonial locations. We get the sense that he is a deep

spirit, that Harold. He's also evidently curious about what we are doing, setting off as we do at odd hours and often being out all day.

One afternoon, Harold comes over and asks if we'd like to accompany him, telling us he's going down to the southern end of the range. As we've not had many previous opportunities to hang out with Aboriginal people, we welcome the opportunity.

Setting off together, we drive the dirt road that runs parallel to the range. Harold says little. It doesn't seem the occasion for small talk. For half an hour, we rattle along the corrugated track, which eventually takes us closer to the hills and terminates at the entrance to an impressive gorge. The engine is switched off, and alighting, we stand in the stillness, taking in our surroundings. I am already listening, hearing a Willie Wagtail calling from somewhere up on the stony slope.

Harold turns to us. "We're going to find a place to sit quiet. You go maybe on those rocks over there," he says, indicating with a gesture of his hand. "We'll just sit awhile and listen."

After the drive, I am glad of the opportunity to settle, get the sounds of the vehicle out of my head, and let my ears adjust. I nod, "Good, it'll give us some quiet to tune into the bush."

He focuses on me for a long moment, as though wondering how or even whether to respond, then says softly, "No, that's not why we do this."

Now I am puzzled. "I don't understand."

"This is not for you to tune into the bush," he continues. "It's for the bush to tune in to you. Find out what kind of fella you are. Whether you're of good character, whether you can be trusted. If you are, the bush will start revealing itself. Start talking to you. It'll tell you things."

These experiences occurred many decades ago, when I was in my early thirties. They marked the beginning of what would turn out to be a life of listening to nature. As Sarah and I sat quietly that afternoon, with Harold a short distance away, I thought of his Aboriginal perspective as a lyrically poetic yet mildly superstitious



way of perceiving nature. I didn't appreciate then the depth of his words, and just how profoundly connected was his relationship with the country around us. Nor did I recognise the habits and assumptions that pervasively disconnect my own culture.

In time, I'd come to reflect on Harold's words as embodying an essential wisdom, one pointing the way to appreciating the communicative relationships that infuse the natural world, and to finding my own place among them.

# An Invitation to Listening

Deeply listening to another person, particularly one whose life experiences, beliefs or world view differs from our own, has been described as a radical act. As a concept in Western thinking, it emerged in the 1980s from the contemplative practice of artists such as Pauline Oliveros<sup>2</sup> and Hildegard Westerkamp.<sup>3</sup> More recently, the skills of deep listening have been applied to social engagement, personal relationships and group counselling.

If deeply listening to another person can be considered challenging, then the listening journey I propose is equally, if not more so, as it will take us beyond the human world altogether. Beyond the values, ideas, opinions, news, information and entertainments that fill our days as highly social animals. Beyond the daily conversations that we share with each other. Instead of inward, to ourselves, to the familiar, I shall be encouraging you to listen outward; beyond our species, our human bubble, outside of what is sometimes referred to as the anthroposphere.

My invitation is to listen deeply to the natural world, to those multitude of other beings with whom we share our planet.

Perhaps this may seem a straightforward exercise, after all, hearing is such a fundamental sense of perception that we use every day.<sup>4</sup> Yet its very familiarity can cause us to underestimate it. The act of truly listening involves far more than simply hearing. Deep listening requires not only *attention* to what we hear, but the *intention* to open our senses, and allow what we perceive to influence us. By doing so, we learn as much about ourselves as the other. This can be confronting enough and generate profound outcomes when we listen deeply to another person. If we listen to nature with a similar intention, the context is broadened to *all*

of life. To find meaning in the communications of other creatures with whom we don't share a commonality of kind, requires not only learning the languages of nature, but cultivating a more attentive mode of listening.

I can say this clearly now, but I was far from aware of it initially. As Sarah and I hiked and explored under a wide Mutawintji sky, I was not thinking about the act of listening. Instead, always ready with the microphones, I was opportunistically seeking to capture anything interesting. Playing back those recordings now, I can remember the excitement and fascination I had when making them. I can bring to mind the person I was, discovering this new 'window' on nature, and with the naive enthusiasm of youth, envisaging how they would contribute to our creative project. Now, with headphones on and eyes closed, I can even recall the moment; my surroundings, the light, the ground underfoot, the dry desert air. This is the poignancy with which sound can bring memory alive.

However, with some dismay, I'm also aware that many of the recordings I made then were short, often a few minutes here, another few minutes there. The longest recording – yes, on that ridgetop – was only twenty minutes. I was capturing sound bites. At the time, I imagined assembling the 'good bits' into a sonic portrait of the environment, like a set of acoustic postcards. This approach seemed thoughtfully conceived and self-evident to me then. Now I recognise I was carrying the presumptions learned from the culture in which I'd grown up. My perception of nature's soundworld was fragmented because my listening was similarly inconsistent and unsustainable.

How can we cultivate a deeper sense of listening to the natural world? Fortunately, we're wired to do so. The human brain itself is a product of nature. By default, our cognition is tuned to the sounds of the living world. Throughout a long, long evolution over countless generations of our animal predecessors, the minds that eventually became human have been immersed in the sounds around them. Nature has provided the sonic stimulus to which our sensory perception has refined itself.

For humans, like any animal, the neural connections required in listening are reinforced through daily life. Our distant ancestors, living in close connection to nature, would likely have been aware of their surroundings with far greater acuity than we practice today. As they walked the land, they would have used sound to assess whether there were opportunities, or threats, to respond to. One expression of this is that while we may expect our hearing to be adapted to the voice, my colleague, the American sound recordist Lang Elliott,<sup>5</sup> has suggested that instead, the human ear is acutely sensitive to the frequencies and nuance of rustling grass. From my experiences of wildlife moving through the dry, waist-high grasses of East Africa's savannahs, the habitat in which pre-human cognition evolved, I can fully appreciate why that would be.

Once language began emerging in early *Homo sapiens*, listening would have remained vital as increasingly complex communications within our species developed. In societies without writing, practicing what is termed primary orality, all knowledge had to be heard, memorised and passed on precisely. Learning came from elders telling stories, singing songs and describing the interactions of the living world. In an oral culture, accurate listening, comprehension and recollection skills would have been life skills. They would have ensured survival.<sup>6</sup>

You'd have to assume those peoples were far more keenly aware of the sounds around them than ourselves as modern listeners. This is suggested by the way Indigenous cultures often recognise and name creatures by their voices rather than appearance. Australian Zebra Finches for instance, named by European colonists after an obscure visual reference to a mammal not even native to the continent, are known by Western Desert Aborigines as 'nyi-nyi's, a fair approximation of their call. 🐦 The Indigenous name 'currawong' has been applied by science to the entire *Strepera* genus, yet only one of its member species, the Pied Currawong, gives that evocative cry. 🐦 Across the country, crows and ravens have many names in Indigenous languages, but variations of 'Kwaa', 'Karrnka' and 'Waa' are common.

These close associations with everyday sounds are an indication that, for subsistence hunting and gathering peoples, listening to their environment would have been a life or death skill – not only necessary, but unquestioned.

When one's listening is this attentive, nature is experienced as an intimate reality. In this kind of intimacy, listening becomes a transcendent practice. It becomes more than simply the hearing and objective interpretation of sounds. Rather, it opens up a communion. We become present to the world through the act of listening. We simultaneously hear the natural world in the moment, and are aware of our relationship to it. We become part of what is heard.

## Slowing Down to Listen

All this suggests that, when it comes to listening to nature, our twenty-first century cognition is poorly adapted. The skills that accommodate us to a technological world of rapid information delivery do not serve us well when it comes to being aware of the natural world.

Essentially, the issue is this: nature operates at a different pace.

In nature, sonic processes often happen on a gradual and diffuse time scale. In the natural soundscape – the sum of all sounds that can be heard in any one place and time<sup>7</sup> – events such as a dawn chorus may emerge, grow, sustain and then dissolve over several hours. Other patterns manifest on even broader timescales, being governed by daily or seasonal cycles. Even when listening to the moment by moment flow of what is audible, change may happen imperceptibly. One may not notice immediately that a new voice has emerged in the landscape, or that a prevalent one has fallen silent.

To listen to nature mindfully, we have to slow down. We must adapt to an unhurried tempo shaped by a schedule not of our own making. We need to switch down the gears. While we may be used to streaking along in a cognitive fast lane, weaving and

overtaking, nature requires something more pedestrian of us. Not only slower, but attuned to nuance, to the delicate, the subtle and the ephemeral.

This refocusing of our attention can be elusive. I certainly didn't find it easy when I first began, habituated as I was at the time to urban life. Of course, cities are pervasively filled with low-significance sound, and our public spaces often cluttered with distracting acoustic stimuli. Filtering all this input for what is relevant to us and what is not, minute by minute and day after day, puts considerable cognitive demands on the brain. Our minds achieve this acoustic processing very efficiently, yet many will readily identify a connection between noise and stress.

Hence it is understandable that in urban circumstances, taking the time to actively listen to one's surroundings can become rare. For many of us, it may constitute a brief and occasional moment of curiosity – to a bird singing in the garden perhaps, or distant frogs that have begun calling after rain – a slight noticing of the world around us.

This desensitising – literally 'de-sensing' of ourselves – to the natural world seems a symptom of contemporary life. It affects us all, as my own experience revealed to me. When nature assumes only a peripheral importance, we lose those cognitive functions that allow us to comprehend it. They atrophy. Ironically, this is a natural plasticity, the capacity of our brains to reshape themselves according to need – for us, the forging of neural pathways in response to our technological lives.

Yet nature is the sonic world we have evolved to make sense of. The capacity to attune to the pace of nature and the patterns of organic sound, remain deeply embedded in our biological minds. As we nurture a fresh focus on listening, we can be confident that the mind's inherent flexibility will allow latent capacities to be re-awakened, gently orienting us to perceiving our natural surroundings anew.

## The Sense of Hope

The way we listen is thus an expression of the way we live.

I find it no coincidence then, that contemporary Indigenous cultures, with their traditions of listening to the land, find themselves at the forefront of advocating for environmental protections. In the same way that radical listening implies respect for the person being heard, deep listening to nature also embodies respect. Honouring is an inescapable consequence of being aware. These two themes, foundational to the thinking of First Nations Peoples, seem to echo down the millennia; listen to the land, care for the land.

In this way, listening offers hope.

Firstly, it does so personally. By fostering our listening skills, we can enrich our connection with nature. This can be a lot of fun and engage us at any age. I recently had the opportunity of working with a group of primary-age school kids on a Melbourne bayside excursion. They were a good natured but typically unruly mob, yelling and play jostling one another. Out on a pier, with hydrophones (special microphones for listening underwater) dangling down into the depths below, they listened on headphones with complete attention. Immersed in a new soundworld, they became children rapt in fascination, listening to the sharp clicks of marine shrimp for the first time. 🐡 Their faces told the story. Listening offers an immediate, sensory and emotional connection, engaging our being with the living environment.

Secondly, listening offers humankind hope of renewal. As our oldest cultures teach, taking the time to listen is a way of caring. Implicitly, we are showing respect for the natural world by giving it our attention. Through this intention to listen, we are not passive, but actively creating something – a relationship between ourselves and what we become aware of.

Conceiving of listening in this manner quickly runs smack bang into entrenched assumptions. In the modern, industrial world view, with its insistence on objectivity, any implied relationship with nature is suspect. Surely, when we hear wind in the trees it is

simply the audible consequence of an inanimate process? Birdsong may represent communication, but aren't birds themselves largely indifferent to our listening presence? Where is the relationship?

With this scepticism, we maintain objectivity, and with it, disconnection. True listening – deep listening – is incompatible with separation. It subverts withdrawal by returning us to our senses, immersing us like children in the breathing, singing, murmuring, whispering, animate world. Through listening, we can transcend the self-defined boundaries of our anthroposphere and enter into the communicative life of the biosphere.

I suggest that intimate listening is thus the most completely human way of relating to the wild and free-living creatures with whom we share our planet. Maybe in doing so, we can unlearn those habits of our self-referencing culture, and find a new sense of our human place in the world.

If we're to fully embrace what deep listening has to offer us, we will need to be open to learning as much about ourselves as nature itself.

## Our Listening Journey

In one way or another, this book addresses a question I've been asking most of my life: what is our true relationship to nature? – both as individuals and as a species. In coming to my own answers, I've found that listening, by providing a direct awareness of nature, brings us back to the fundamentals of relationship, and thus offers a unique and fresh perspective.

I need to begin this book by assuming that my invitation to listen will come as a novel adventure. So we'll start by easing into a sound-focused awareness; tuning our ears in to nature and the daily lives of creatures around us. I'll discuss the field skills of how to identify species by ear, interpret their sonic behaviours and appreciate their sentience.

From there, we can explore a central issue; what listening reveals about how the living system of nature functions. In pur-



suing this, I'll be taking you on a global journey to immerse ourselves in the mysteries of deep time, and explore how creatures have evolved the use of sound and communication to regulate their interactions. In particular, the songs of birds will allow us to consider how they negotiate their relationships in such lyrical ways, and the purposes they achieve by doing so.

Interspersed with the above topics will be short interludes, in which I'll share pivotal moments in my own listening journey.

All this will form a necessary foundation for the concluding section of the book, in which I'll reflect on what we may learn from nature in the context of our current environmental challenges. How may we mimic what nature has achieved in sustaining life, as we move toward an ecological future?

## The Limitation of Words

Before we launch into things, there is a final issue I need to mention. It is one with breathtaking implications for the way we understand the world, and it's this: books don't do sound.

When you consider that, since the advent of writing, our collective human knowledge has been conveyed predominantly through text on the page, and that those pages have been incapable of communicating the acoustic realm, we get an inkling of just how limited our understanding of the world has become. The page simply can't do justice to sound in the way that it can to the visual, where images, drawings, maps, graphs and diagrams can be included. When we convey information, one of our most crucial sources of meaning can only be poorly and obliquely referred to.

This failure of the medium is amplified by the paucity of language we have to describe the subtleties of abstract sound. In speech, meaning is conveyed through inflection, intonation and dynamics, and we have a reasonable language for conveying these nuances in prose. However with natural sounds such as birdsong, where subtle distinctions can differentiate species, subspecies or local populations, we do not have a comparable wealth of

vocabulary. Trying to articulate the character of a particular creature's voice can be fraught with vagueness. We can employ words such as metallic, liquid, grating, silvery, harsh, ringing and so on, but these somewhat poetic allusions are subjective, and may only be useful if you appreciate the sonic quality being described.

The written word also acts to diminish our appreciation of the life force of our fellow creatures. When a creature vocalises, we hear it giving voice to itself. As animals, we listen, and there is an empathic response in hearing another living being. We can perceive something of its life essence, the spirit of the animal in its voice. If we have insufficient language to describe sound, we have even less to articulate this essential connection that listening affords us with other creatures.

Words thus fail us. There are times though, when we are reminded of how primal sound can be. In Tanzania, Sarah and I observed at close quarters from the safety of our vehicle as a pride of Lions tore apart the carcass of a recently downed Wildebeest. It was a gruesome spectacle, yet it was not the sight that was affecting. It was the continual sound of panting and low grunting, of bones being crushed and sinews torn. 🦁 Several hours later, with the cubs finishing off the last scraps, the pride of adults began roaring in chorus. They were by now lying all around us on the ground, and with necks outstretched and bodies taut, they heaved out each breath, creating a resonant, guttural sound. 🦁 After hours of watching in fascination, their roars were visceral. My knees went involuntarily weak and I suddenly felt acutely vulnerable. It was an instinctive, gut reaction.

This is the power of sound. Its physicality alone conveys meaning.

These disparities between text and sound are due to our senses functioning differently. In seeing, we divide the world up, focusing our vision on discrete objects and recognising them as separate. These visual objects initiate language; we name things. When language hits the page, ideas become, somewhat literally, set in stone. This subtly habituates us to objectifying the world and perceiving it as static.

Sound, on the other hand, is dynamic, an expression of the ever-changing flow of life. When listening, one can analyse in terms of 'sound objects', yet, as with the notes of music or syllables of words, it is their relationships and interactions that convey meaning. In addition, our hearing is not limited by a specific direction nor focused at a particular distance. It is spatially holistic, our ears taking in everything at once; near and far, loud and soft, in all directions.

So whereas the visual, linguistic and written generate inevitable separations, when listening, we put the world back together again.



# Acknowledgements

At one point in the writing of this book, I ran out of puff. I found myself wondering why I was pursuing the project at all, and whether it had value.

Then, during one of my morning walks in the bush, I became aware that the ideas I had been writing had not come from me. They'd most often occurred when I was outdoors, contemplating something I'd heard, wondering how life has brought us all to this point and what was to be learned. I realised that 'my' ideas were not being conceived, but received. I didn't know where they were coming from, but they seemed associated with being in the bush and immersing myself in listening. Without this, they wouldn't materialise. Hence, if the ideas were formed in nature, then my role was as the messenger, translating and conveying them for you, the reader. This was a huge relief – I was no longer writing for myself. Instead, I was writing to honour what I had heard over many years in the bush. And so, for want of a better way to say it, this book is my thank you to nature.

Of course there are many people I'm honoured to acknowledge also.


The journeys in these pages have not been mine alone – Sarah has shared almost every step of them. While I've been sound recording, she has been behind the viewfinder of her camera, making carefully composed and beautiful images. Earth to my air, she has also organised travel, run the practical side of our business and been a wise judge of character at times when we've had to rely on others.

Together, we've shared moments of transcendent joy and great danger. On one occasion in Africa, being driven by Roger, we were exploring slowly along the banks of the Ruaha River. Unexpectedly, a huge male elephant emerged from a thicket of vegetation and began charging us. In India, we'd experienced mock charges from elephants, but with ears out, tusks down and barrelling toward us, this animal was not kidding. It was only Roger's quick reflexes and driving skills that saved us. Safely back at camp, he was shaken and uncharacteristically sombre, confirming how close we'd come to tragedy.

During that trip, I also recall Sarah's delight on first encountering wild giraffes, a mother with a calf resting at her feet. On our final evening, we watched together by moonlight as a trio of elephants moved like phantoms through our bush camp, making their way to feast at a favourite fruit tree.

Incidentally, I must tell you of new directions that have emerged for Sarah in recent years. After our decades of field work together, she has embraced a childhood dream: to become a potter. Studying with a master potter locally, she has now set up her own small studio and gallery. With a certain amount of partner pride, I can say that she is very talented at her new vocation.<sup>67</sup>

So in many ways, this book is as much hers as mine.

When we were at Mutawintji, it had not occurred to me that I may have colleagues. It was only after we returned that I met other nature recordists. Amidst cassette and reel-to-reel machines in the home studio of Rex Buckingham, I became aware that others in this country had been field recording, some over many decades. When Rex identified a Red-backed Kingfisher clearly audible on one of my recordings – a beautiful bird I'd never set eyes on, and yet had unknowingly been in the presence of – I also realised how much I had to learn. 

Through him, I became involved with the Australian Wildlife Sound Recording Group. On first attending one of their biennial conferences, I met individuals of that pioneering generation who

did groundbreaking field work, often with the most primitive equipment and under arduous conditions. I recall one of them, Harold Crouch, eagerly taking me aside to share his fascination with the dawnsongs of White-plumed Honeyeaters. His curiosity fed my own, and I wish he were still around to discuss the significance of pre-dawn repertoires.

Also during that gathering, a session was convened to formally incorporate, which involved deciding on a name. We were Australian wildlife sound recordists, but were we a club, an association, a society? After much discussion, another of the old hands, John Hutchinson, softly suggested that, when it came down to it, we were a group of friends. And so the AWSRG we became.<sup>68</sup>

John was right; in addition to colleagues, many in the AWSRG have become close friends. I've learned from them, travelled with them, and have so much to thank them for. I can't name them all, but they know who they are. In turn, they have now elected me their president, a questionable honour as it indicates I'm now becoming an elder of the tribe myself.

Meanwhile, my overseas travels have resulted in connection with colleagues around the globe. In particular, I wish to acknowledge Geoff Sample<sup>69</sup> and Lang Elliott,<sup>70</sup> both of whom have been publishing stereo soundscapes for as long as I have. Geoff is not only a sensitive recordist, but in his thinking, blends a long history of European cultural knowledge of nature with contemporary biological science. Whenever we've been in the UK, he and his wife Jane have been generous hosts, and I've enjoyed hours in his study, comparing experiences and recordings from opposite sides of the globe.

Similarly, Lang has swept us up during our trips to the US, taking us hiking, canoeing and exploring his local Adirondack Mountains in upstate New York. Our first meeting was enlivened with his enthusiasm for the SASS microphone system, a technology originally intended for recording classical music, but one he found rendered a rich binaural portrait of the landscape. Lang subsequently arranged for a unit to be customised for me, and it

has now travelled the world, capturing the majority of my album recordings. I still use it to this day.

For equally collegial friendship and hospitality, my heartfelt gratitude goes to Doug Quin, Peggy Droz, Gina Farr, Jim Cummings, Dan Duggan and Sharon Perry in the states, Mark Brennan in Canada, Marc and Olivier Namblard in France, Roger Boughton in the UK and Juan Pablo Cullaso from Uruguay.

I also want to send a shout out to our wildlifer friends in India, in particular Kishore Gumaste, Rahul Rao, Girish Vaze and Kedar Bhat. Through his nature travel company, Foliage Outdoors, Rahul and his team waded through baroque Indian booking systems to arranged much of our travel around the subcontinent over several trips. He also organised, at very short notice, several public talks for me, even conveying me to one venue on the back of his motorcycle through Pune's peak hour traffic – not a very calming start to the event.

Our guides and drivers in various countries deserve far more thanks than I can offer here. From the stories of our time with Roger (Rajabu) Kissaka and Ally Kimea in Tanzania, and Twomey and Moffat in the Solomon Islands, you get a sense of how indebted we are to them. In India, Thailand, Vanuatu, Nepal and elsewhere, our local companions have done far more than simply convey and guide us around to make sound recordings. They've allowed us to glimpse the hardships of living in poorer countries, and often welcomed us almost as family. To Shankar, Jyoti and KB, Shiva, Suchat, Pak Martin, Sanjeet, and others whose names are now lost to us, I offer our salutations and deep appreciation.

As an example of the ways in which we've touched each other's lives, I'll mention Dharmaja, our driver at Nagarahole National Park during our first field trip to India in 2002. As the local village jeep driver, he had never entered the nearby park, and yet he not only rearranged his daily schedule to facilitate our early morning safaris, but turned out to be an adept wildlife spotter. We spent ten days with him, and on our final morning he brought his wife to



join us for her first experience of the park. On another trip many years later, in the Foliage Outdoors office, Rahul mentioned that they had found a great driver for their Nagarahole tours. We were delighted to learn that it was none other than Dharmaja. Ours was an unlikely connection – he was our first driver on our first overseas field trip, and we inadvertently introduced him to his future work.

Our drivers have not been the only people to go out of their way to assist us so far from home. In Bangalore, we were introduced to a prominent wildlife conservationist, known to his friends simply as KN. After an evening talk at his home, and the following day spent with his family, he took us to visit his rural estate, which he ran as a sanctuary. From there he made arrangements through his contacts for us to be accommodated at another park. This spontaneous helpfulness reflected the dignity and inclusiveness with which he seemed to approach everyone. Weeks later, as we were leaving the country, I phoned him from the airport to thank him again and say farewell. I'm glad I did. Only a fortnight later we received word that he had died in an accident on the land he loved.

This book has grown out of more than international travels and ambles through my local bushland. The narrative of ideas has emerged gradually over the years, largely through invitations to give talks and lectures. Whether they've been to small community groups or as a conference keynote speaker, I've taken the opportunity to continually hone ideas and refine my presentations. In particular, I'm grateful to several academics who have extended the opportunity to work with their students, including Leah Barclay, an acoustic ecologist formerly at Griffith University, plus Gregg Muller, Alistair Stewart and Philippa Morse of La Trobe University, Bendigo, who have invited me to guest lecture each year to their outdoor education class.

Along the way, there have been other significant engagements, including a series of presentations at Woodford Folk Festival, which were recorded by ABC Radio National for their *Big Ideas* program, plus a TEDx talk in Canberra.<sup>71</sup> The latter forced me to be concise

and selective about what I considered important, an attitude I hope I've transferred to this book.

In 2019, I was invited by Dr Michelle Maloney to speak at an Australian Earth Laws Conference.<sup>72</sup> For the first time, I realised I would not be addressing a nature audience, but one comprising lawyers, ethicists, social academics, activists, policy administrators and the like. Instead of delivering my conclusions about what we could learn from nature with a wink and a raised eyebrow, I was going to have to spell it out. Even though the concepts I presented on that occasion were a rough sketch, the audience's keen interest demonstrated that I was addressing a topic of value, and I've continued refining my thinking. The final chapters of this book are the result.

Once the early manuscript was complete, and with some trepidation, I sent it to colleagues and friends for their feedback. I am particularly indebted to Jennifer Ackerman for her encouragement when I was doubting myself, plus her author's advice and industry advocacy. Sally Polmear and Brian Walters took the time to forensically examine my text, each offering a great swag of the most constructive suggestions and comments.

From her perspective as both an ecologist and sound recordist, Dr Sue Gould has been of great assistance in identifying areas where further enquiry was required. Geoff Sample's feedback, particularly regarding his native Europe, I've taken with great consideration. Gregg Muller and Alistair Stewart have contributed to the section on Grey Currawongs and Cherry Ballarts. The author and naturalist Tim Low has contributed to my thinking, particularly in chapter five, and picked up issues that required clarification. Peter Yates and Craig San Roque's understandings, gained through extensive work as anthropologists among the Aboriginal peoples of central Australia, have been helpful, and John Smith Gumbula, a Wakka Wakka man and advocate for Indigenous arts and culture, has voiced approval of the manuscript.

Richard Sullivan, Dr Lynne Kelly, Craig Morley, Jan Wositzky, Richard Weis and Ted and Jenny Kent have also given feedback and support that I've found invaluable beyond measure. Finally, Julie and David Gittus have offered structural feedback that this book has greatly benefitted from.

Once satisfied, I forwarded the manuscript to Kristin Gill of Northern Books, a freelance literary consultant and event organiser, for her assessment. Her positive encouragement and practical assistance gave me the lift to take this project toward completion, and I'm not sure how I would have done it without her. Robin Murdoch edited the final manuscript with an eagle eye, and Helen Christie refined the design, typeset the book and prepared it for printing.

The cover features an evocative photograph by Lachlan Read. Whilst it is relatively straightforward to take portraits of birds and animals, to capture wildlife images with mystery and beauty as Lachlan has done, is a rare art indeed.

My heartfelt thanks to all these folk who have assisted, contributed, challenged and supported me. If I've omitted anyone in these acknowledgements, this is more my oversight than any lack of appreciation.

Finally, my gratitude to you, my reader, for taking the time to share in this listening journey. I hope it inspires your own, and welcome any conversation that may emerge one day.

*'Andrew's book is filled with his boots-on-the-ground, ear-to-the-bush field experiences around the world, with keen and surprising observations on sound and the stories it tells us, that make us hear the world – and understand our place in it – in a new way.'*

**Jennifer Ackerman**, author of *The Bird Way*

*Deep Listening to Nature* is an invitation to open our ears to the natural world.

Beginning by tuning in to the sounds of creatures around us, Andrew discusses how to identify species by call, interpret their communications and find empathy for their sentience.

He also suggests that we not only listen to learn *about* nature, but learn *from* nature. He asks how, in our current environmental crisis, we may reflect on what nature has achieved in sustaining life as we move toward an ecological future.

Andrew encourages us to be still and listen. Take our time. Extend our senses. Let nature get to know us, and in its own way, to welcome us.

*'Succeeds in awakening the ears.'*

**Tim Low**, author of *Where Song Began*



**Andrew Skeoch** is a naturalist, environmental thinker, educator and one of Australia's best-known nature sound recordists.

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