sound that's way out

THE MAN RECORDING THE MUSIC OF NATURE RECKONS ITS TUNE IS STARTING TO CHANGE.

Writer *Patrick Pittman*

BERNIE KRAUSE DIDN'T START HIS CAREER IN THE WILDERNESS. LIFE AS A MICHIGAN SESSION GUITARIST, SHOWING UP ON THE OCCASIONAL MOTOWN RECORDING, IS PRETTY FAR FROM THERE.

If you wanted to understand how he became one of the most revered practitioners of soundscape ecology – preserving, recording and understanding the sounds of the natural world – there's a chance you could draw a thread from his early career in folk music, and that time he landed in the seat Pete Seeger had vacated in the Weavers, just before they broke up in 1964.

But really, the counterculture of the 1960s had plans for him beyond being a simple folk troubadour. You can find the most compelling clues in where he landed next, in the nascent electronic music scene that was bubbling up in San Francisco. If the Weavers were uncovering the traditional sounds and stories of the hands that built America, here he was working to create music, and sound, that no ear had ever heard before. Alongside his friend and collaborator Paul Beaver, he became a synth man, a pioneer of the Moog. He rubbed shoulders at Mills College with Karlheinz Stockhausen and Pauline Oliveros, composers who were mapping out the playbook for the avant-garde's next few decades. As a unit, Beaver & Krause's influence sits well beneath the radar, but Moog nerds know it well – their synths can be heard on albums by the Doors, the Byrds, the Monkees and Van Morrison, and even in *Rosemary's Baby*. Their album *The Nonesuch Guide to Electronic Music* serves, to this day, as a definitive reference for the capabilities of the Moog, and one of the key documents of electronic music of the era.

Krause's mind, however, was restless. He couldn't find peace. In 1968, as he sought to calm what he now knows to be ADHD, this kid from Detroit ventured out into the woods north of San Francisco with a microphone and a bulky recorder, searching for stillness. There, for the first time, he heard the wild orchestra striking up. Through his headphones he heard the insects in the grass, the wind in the leaves and the birds on the branches. There, he realised that if you want to understand what music means, and by extension what sound means, it's amazing what you can learn if you're willing to shut up and listen.

"I was terrified of being in the wild," Krause tells me from his home just outside of Sonoma in northern California. "I grew up in a family that was really animal-averse. When I got out there and turned on the recorder, it just transformed everything that I thought I knew about sound and recording. Because it was so engaging to me, I felt very relaxed for the first time in a long time. It was the first time I felt really numbed by sound, without the help of medication. I just went back to try it again and, sure enough, same thing happened. Every time I had a spare moment from our music career, I went off into the field to record and just listen."

Since those early recordings in Muir Woods, Krause has devoted nearly five decades to recording the natural world. Though his music career continued into the mid-1970s, incorporating some of these new wild discoveries, Beaver's death in 1975 led to a complete devotion to the field he would help define as soundscape ecology. (Although if you listen closely, you *can* hear the synths he contributed to *Apocalypse Now* a couple of years later.)

Travelling the world with his recorder and a couple of microphones in hand, Krause has gathered more than 4500 hours of sound for his Wild Sanctuary archive, from some of the most unique and fragile ecosystems on the planet.

>>

AS YOU LISTEN TO THE TEXTURES OF THE NATURAL WORLD, YOU BEGIN TO FIND LAYERS AND PEEL THEM AWAY TO UNDERSTAND THEM, AND THEY'RE VERY COMPLEX, AND QUITE BEAUTIFUL.

<<

His archive is not just the song of birds and insects, but of ice calving from glaciers off the Alaskan coast, of Dian Fossey's gorillas in Rwanda, of wolves howling in Canada's vast Algonquin wilderness. He has documented, in many cases, the human-caused retreat of these soundscapes into eventual silence. He spent years figuring out how to capture the sound of a breaking wave in a way that would somehow replicate the experience of standing on the shore: not just the water itself, but the way it pulls back across the land. A recorder, for Krause, became a tool for learning to listen.

"We don't listen in very discriminating ways because we're a visual culture," he explains. "Most of what we think we know of the world around us comes from what we see. The soundscape is a narrative of place, and it's the language that conveys where we are. As you listen to the textures of the natural world, you begin to find layers and peel them away to understand them, and they're very complex, and quite beautiful. There's a sense of eloquence that's expressed in these natural sounds that you can't get in any other form of listening."

Building on the work of others such as the Canadian composer R. Murray Schafer, Krause developed a new language to understand how we listen, breaking the soundscape down into three component parts: "geophony", the non-biological sounds of a wild environment (wind in the trees, water in the stream); "biophony", the sounds that all organisms make in a habitat; and then us, the "anthropophony" (music and language, first, but also the din and the chaos of our presence on this planet). Critically for our understanding of how these soundscapes are changed by our interventions, he also developed the concept of the "acoustic niche". "This means that all of the critters in a given healthy habitat find acoustic bandwidth, just like instruments in an orchestra, in which to vocalise," Krause explains. "Otherwise if they can't find clear bandwidth for their voices both to transmit and receive, their voices will be masked."

Sound disappears in the instant, if not captured, but so too eventually do the soundscapes, as the anthropophony takes over. Krause claims more than 50 per cent of the habitats he has recorded no longer exist in the same way. The effects can be subtler than silence – it can be once-dominant voices suddenly missing from the dawn chorus, or new critters competing for the same spectrum. Laying side by side the spectrograms of his recordings in the same ecosystems over a course of decades, the message in the soundscape becomes undeniable. There is emptiness where once there was activity, chaos where once there was order.

"In most healthy habitats," Krause explains, "we can not only hear but we can see how species such as insects, amphibians, birds and mammals in a given location find acoustic bandwidth for their own voices. In healthy habitats, those distinctions are quite obvious. If the distinctions aren't there when you see a spectrogram, you know that a habitat isn't healthy. Even when you do what's called selective logging – you take an entirely wild habitat and take out a tree here and there, you don't clear-cut the whole place – it really makes a profound difference to the biophony and the way that the soundscape is expressed."

When Krause set out in the field in the 1960s, he was using some of the first portable recorders available on the market: stereo recording with good microphones in the field hadn't been possible even a few years earlier. Technology since then has advanced rapidly, with pocketable recorders and solid-state storage allowing for unprecedented possibility in terms of volume and quality of recording. The limits are no longer in the gear. But Krause has pared back in recent years to a single recorder and a pair of microphones. When he heads out into the field these days, you can find him sitting 100 metres from his recorder, taking notes, unshackled from his headphones, just listening.

"Every new thing that came out on the market I was interested in, if not buying," he recalls. "I had a huge store of stuff. What I found was that the stuff is just really distracting, and about 10 years ago I just began to dump it. The more that I get rid of, the more I find myself engaged with a world that's still living out there. I don't even really monitor my recorder, I don't want to be tethered to it. If I'm recording right, the recording will give a visual impression of where you are, and what time of day. It tells you everything you need to know about it if it's done right. That's the art of recording."

Krause's latest book *Voices of the Wild* is framed on its cover as a "call to save natural soundscapes". But, as Krause tells it, he didn't set out to become an activist. It's just that when you really, really listen, there's an urgent call out there that you can't help but hear.

"The intent of my work was not intentional. So there's a contradiction for you," he laughs. "It was just to make me feel good when I went into the field. It just physically made me feel better. But we're losing this language, this library, that is key to our lives. It's telling us everything that we need to know about our relationship to the natural world. The places that I feel more comfortable and alive and vital and part of the living world are those places that are still wild, and still have that acoustic texture to them." •