

Curatorial > PROBES

In this section, RWM continues its line of programmes devoted to exploring the complex map of sound art from different points of view, organised into curatorial series.

Curated by Chris Cutler, **PROBES** takes Marshall McLuhan's conceptual contrapositions as a starting point to analyse and expose the search for a new sonic language made urgent after the collapse of tonality in the twentieth century. The series looks at the many probes and experiments that were launched in the last century in search of new musical resources, and a new aesthetic; for ways to make music adequate to a world transformed by disorientating technologies.

Curated by Chris Cutler

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At the start of the seventies, Chris Cutler co-founded The Ottawa Music Company – a 22-piece Rock composer's orchestra – before joining British experimental group Henry Cow, with whom he toured, recorded and worked in dance and theatre projects for the next eight years. Subsequently he co-founded a series of mixed national groups: Art Bears, News from Babel, Cassiber, The (ec) Nudes, p53 and The Science Group, and was a permanent member of American bands Pere Ubu, Hail and The Wooden Birds. Outside a succession of special projects for stage, theatre, film and radio he still works consistently in successive projects with Fred Frith, Zeena Parkins, Jon Rose, Tim Hodgkinson, David Thomas, Peter Blegvad, Daan Vandewalle, Ikue Mori, Lotte Anker, Stevan Tickmayer, Annie Gosfield and spectralists Iancu Dumitrescu and Ana Maria Avram. He is a permanent member of The Bad Boys (Cage, Stockhausen, Fluxus &c.) The Artaud Beats and The Artbears Songbook, and turns up with the usual suspects in all the usual improvising contexts. As a soloist he has toured the world with his extended, electrified, kit.

Adjacent projects include commissioned works for radio, various live movie soundtracks, *Signe de Trois* for surround-sound projection, the daily year-long soundscape series *Out of the Blue Radio* for Resonance FM, and p53 for Orchestra and Soloists.

He also founded and runs the independent label ReR Megacorp and the art distribution service Gallery and Academic and is author of the theoretical collection *File Under Popular* – as well as of numerous articles and papers published in 16 languages. www.ccutler.com/ccutler

PROBES #29

In the late nineteenth century two facts conspired to change the face of music: the collapse of common-practice tonality (which overturned the certainties underpinning the world of art music), and the invention of a revolutionary new form of memory, sound recording (which redefined and greatly empowered the world of popular music). A tidal wave of probes and experiments into new musical resources and new organisational practices ploughed through both disciplines, bringing parts of each onto shared terrain before rolling on to underpin a new aesthetics able to follow sound and its manipulations beyond the narrow confines of 'music'. This series tries analytically to trace and explain these developments, and to show how, and why, both musical and post-musical genres take the forms they do. In **PROBES #29** composers turn to nature, not as pastorate but as concrete musical resources. We look at animals, vegetables and one or two minerals as they are directly incorporated into musical works, as leading voices: there are birds, wolves and whales, obviously, but also less cuddly creatures, plants, cacti, rocks and stones. We also consider some of the motives and ideologies at work, and hear minerals make sounds that are hard to credit.

01. Transcript. Studio version

[Gregorio Paniagua, 'Anakrousis', 1978]

[MGM lion]

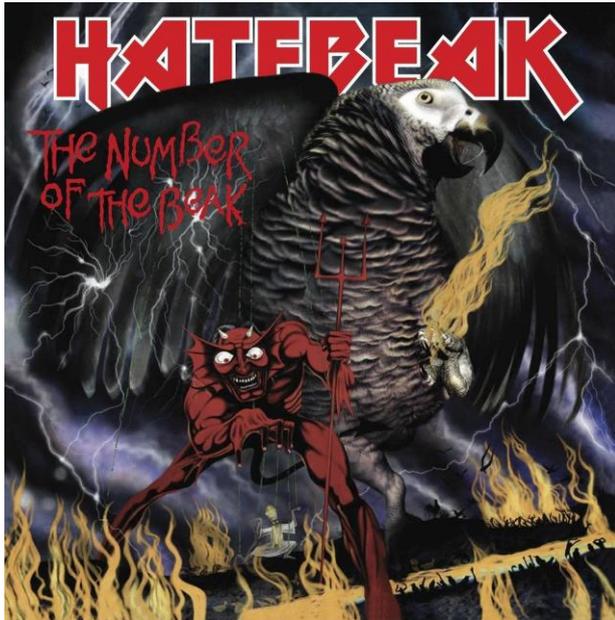
In this episode, we look at animals, vegetables and one or two minerals. Animals have probably influenced music from its very beginning; in fact from before its beginning. In the written record we find birdsong included in musical scores going back to at least the early fourteenth century. And, in recent times, one has only to consider the output of the French composer Olivier Messiaen, who studied, and annotated, birdsong throughout his life, and used his transcriptions as primary compositional material in many works, not least the seven books of piano music that constitute his 'Catalogue of Birds' – or such dense ensemble works as 'Oiseaux Exotiques' – or this, taken from the sixth movement of 'Chronochromie', in which eighteen violins play the songs of eighteen different birds in a musical approximation of the dawn chorus. Although this is not strictly relevant to our topic – because these are not birds but modified transcriptions – I want to play it here anyway, as a useful point of reference.

[Olivier Messiaen, 'Chronochromie' (excerpt) 1960]

In the same year – that's 1960 – Jim Fassett, who was then the assistant music-director of CBS radio, released his 'Symphony of the Birds'. An impressive achievement at any time, this work, made with engineer Mortimer Goldberg, was even more remarkable given the state of technology pertaining at the time. The only processing used was occasionally to slow some of the recordings down. Where Olivier Messiaen's dawn chorus replaces birds with violins, Fassett takes recordings of living birds and organises them into a formal composition. Created for a single afternoon broadcast, this fascinating experiment was eventually released as one side of a now very collectable LP. Here are the first two minutes of it.

[Jim Fassett, 'The Symphony of the Birds' (excerpt), 1960]

It's unusual to put real birds and orchestras together. The man who did it first – using a recording – was the Italian composer Ottorino Respighi who, as we learned in the last episode, courted controversy by flying a nightingale out of the horn of a phonograph and into his tone poem 'The Pines of Rome', in 1924. That also made him the first person to introduce a recording into an orchestral work. A mere handful of composers have followed since, most notably the Finnish composer, Einojuhani Rautavaara, who built his 1972 concerto 'Cantus Arcticus' around collected field recordings of birds from Northern Finland.



[Hatebeak *The Number of the Beak*, 2015]

[Einojuhani Rautavaara, 'Cantus Arcticus' (excerpt), 1972]

In 2003, the enigmatic American death-metal grindcore band, Hatebeak – consisting of drummer Blake Harrison and guitarist and bassist Mark Sloan – went much further when they invited Waldo, an African grey parrot, to become their lead vocalist. And before you ask, they've made four albums so far, as well as working with the Swedish grindcore band Birdflesh who, in the parallel universe of metal, are considered to be quite humorous. This is 'Seven Perches', from Hatebeak's 2015 comeback album: *The Number of the Beak*.

[Hatebeak, 'Seven Perches', 2015]

In 2005, Hatebeak joined forces with the death-grind band Caninus, whose vocals at the time were being handled by two female Pit Bull Terriers. Caninus had already made one album on their own before making this shared release – and they went on to make another, although, curiously, they don't seem to appear anywhere in the Encyclopaedia Metallum. Their records are real enough though. Here are the Pit Bulls, Budgie and Basil, singing 'Brindle Brickheadz'.

[Caninus, 'Brindle Brickheadz', 2004]

In another part of the forest, the American violinist, composer, researcher and author, Hollis Taylor, has been researching birdsong, in an academic setting, for over a decade – leaving a trail of papers and lectures behind. With a performing path that winds through the Oregon Symphony Orchestra, Jazz and East European folk music, formal composition and – in the company of fellow violinist and polymath Jon Rose – playing most of Australia's great fences, she has also become a leading authority on the lyrebird, the bowerbird and the pied butcherbird – all of whose songs, re-composed or taken straight from the avian beak, have populated her recent compositional work, sharing space with traffic, frogs, insects and any other mammals that pop up in the soundscapes with which she works. Here's an excerpt from one of her bird collaborations 'Owen Springs Reserve 2014', for butcherbird and vibraphone.

[Hollis Taylor, 'Owen Springs Reserve 2014' (excerpt), 2017]

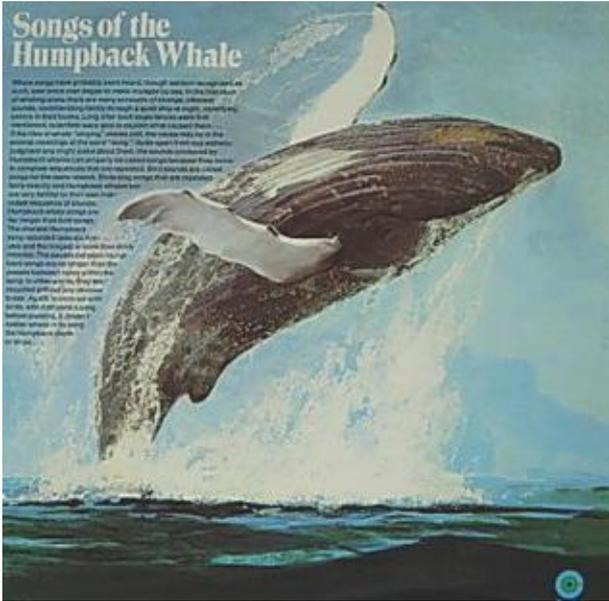
In America, the composer and environmental activist, Jim Nollman, decided to get down on all fours with the animal kingdom and interact with it in real time. In 1978, he set up his non-profit organization, Interspecies, to facilitate interactions between artists and animals – in part as a counterweight to investigations that were purely scientific. He also embarked on a series of personal musical encounters, which involved taking his instruments to animals, making sure they could hear what he was doing, and then attempting to play with them, compiling, in 1982, his manifesto album *Playing Music With Animals: The Interspecies Communication Of Jim Nollman With 300 Turkeys, 12 Wolves, 20 Orca Whales*. Here, the cellist Sybil Glebow takes her turn with the wolves, which were in fact housed in a large cage in an American wolf sanctuary. Nollman reported afterwards that they 'were not given to much improvisatory call and response, and would...stop if we...got too radical.'

[Sybil Glebow, 'Cello and Wolfpack 1', 1982]

Although, at this early stage in the series, I am trying to avoid purely electronic productions, I think this one should be mentioned. It's from Phillip Kent Bimstein's hard-to-categorise sound reportage piece *Garland Hirsh's Cows*, in which Mr. Hirsch speaks about his cows and the cows speak about – whatever it is cows speak about. What I like about this composition is that Bimstein doesn't stray from the human and social dimension, and he makes no assumptions about cow culture; he's just interested in, and I think, respectful of, their voices. This excerpt is from the second moo-vement: 'Pasturale', made in 1990.

[Phillip Kent Bimstein, 'Pasturale' (excerpt), 1990]

While bird vocalisation is ubiquitous and predates the emergence of our own species, most of us were unaware that whales did something very similar – until researchers started to use hydrophones in the early fifties. It took twenty more years for the sounds they heard to be analysed and categorically linked to the creatures that made them. Meanwhile, the American Navy, with its long-



[Humpback Whale, Songs of the Humpback Whale, 1970]

established network of hydrophonic monitoring stations – on permanent look-out for Russian submarines – had been aware of the contents of the undersea soundscape for several decades, but had just decided to keep quiet about them. Perhaps it was a question of secrecy – but it's more likely that they just didn't care; since as far as they were concerned, if it wasn't a submarine it was just noise. Eventually, an echolocation specialist, Roger Payne, became curious about whale song and managed to get access to a significant body of the navy's recordings. After making further recordings himself and analyzing all the data, he and fellow academic Scott McVay, published their seminal paper *Songs of the Humpback Whale*, in 1970 – in which they recognized – in the coherence, regularity and variation of whale vocalization – the character of song. This purely academic exercise became a global phenomenon when Payne released a small run LP on the Communications Research Machines, Inc. label, which was then licensed on to the more corporate Capitol Records – where it sold hundreds of thousands of copies and became a cult classic. Since then, it's been repeatedly re-licensed and is now a multi-platinum monument. The whales didn't get any royalties, but they did benefit in other ways.

Musical communication with whales came sometime later and, again, it was Jim Nollman, who set up his amplifier in the sea and went regularly to play waterphone or metal guitar with his local pod. Here's the track Nollman called 'The Lesson', because he believed it showed the orcas instructing him in song – repeating phrases, breaking them up and slowing them down. He advances this recording as evidence of meaningful interaction – and it certainly caused some controversy when he presented it to a meeting of the International Whaling Commission.

[Jim Nollman, 'The Lesson', 1982]

David Rothenberg, an American composer, jazz clarinetist and author of popular books on the relation between music and the natural world, also spends quite a bit of his life setting up situations in which he can play with – or at least play along with – mammals and insects. I don't doubt his sincerity though, like many in this field, he does strike me as rather starry-eyed. Here he is following in Nollman's footsteps, a quarter of a century later, playing his clarinet through underwater speakers with the whales.

[David Rothenberg, 'Whale Music', 2008]

And while we're here, I should at least mention the American mainstream jazz saxophonist Paul Winter – another musician who has travelled widely and embraced capital M Mother nature as a source of meaningful playing opportunities...

[Bob clears his throat]

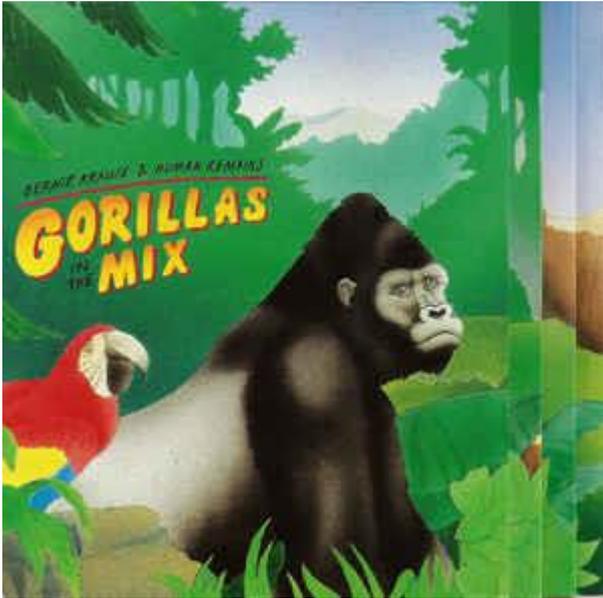
OK. Yes, I have a declaration of interest to make: my instinctive reaction to the more gooey of these good-hearted endeavours is... well you remember when Werner Herzog freeze-framed the bear's face in the film *Grizzly Bear* – and says: 'there is no such thing as a secret world of the bears. And this blank stare speaks only of a half-bored interest in food. But for Timothy Treadwell, this bear was a friend, a saviour...' Winter's group has also made several CDs on which they imitate, channel or – specifically incorporate recordings of – whales, birds and wolves. In fact, the usual suspects – no pigs or mice or wildebeest.

[Squeak]

Well, I agree, and as an independent equal opportunities podcaster, here *are* some pigs and mice and wildebeest.

[Wildebeest, pig, mouse]

And before I move on, I have to mention Bernie Krause and Paul Beaver. The young Bernie Krause had been both a session guitarist and a member of The Weavers, before he moved out to Oakland to study electronic music – where he met Paul Beaver. Beaver's route to electronics came through jazz – we met him in Probes 16, working on the indispensable *The Zodiac: Cosmic Sounds*. In 1966, this duo became one of Robert Moog's first customers and quickly set up a



[Bernie Krause & Human Remains, 'Gorillas in the Mix', 1989]

company called Parasound to provide Moog Modular Synthesiser services to the world at large; they were even canny enough to set up a Moog booth at the 1967 Monterey Jazz Festival. It turned out to be a smart move because the modular synth was the right instrument at the right time and the sessions started pouring in – with The Byrds, Stevie Wonder, The Doors, Van Morrison, George Harrison – everybody seemed to want some Moog on their new album – or in their Hollywood movie – so for several years, Paul and Bernie became the go-to guys for Moog. They also found time to release albums under their own names, one of which – *In a Wild Sanctuary* – was the first to integrate soundscape recordings into musical compositions – if you discount the rainstorms and tropical forests on thousands of hi-fi stereo exotica albums – on the grounds that these are sound effects rather than soundscapes. When Paul Beaver died unexpectedly, in 1975, Bernie Krause began increasingly to dedicate his energies solely to the documentation and study of acoustic ecologies. Like Hollis Taylor, Krause took a more analytical and clear-eyed approach to the natural world; mapping, in his case, the way the inhabitants of specific environments evolve to occupy stratified acoustic niches – like radio stations assigned exclusive frequencies – thereby maintaining communicational functionality in their immediate sonic environment. In the last three decades, Krause has amassed more than 5000 hours of recordings, which include a wealth of comparative soundprints taken at multiple locations, before and after major ecological interventions – interventions that miscellaneous companies and governments had mendaciously claimed would have little or no environmental impact, and which Krause is now able to prove unequivocally to have been catastrophic. This is useful work. Krause says that more than half the natural habitats he has recorded in the last half century have since fallen silent or become unrecognisable. The younger Krause, however, wasn't above making rather more dubious use of animal recordings, especially on his 1988 release *Gorillas in the Mix* – the sleeve notes of which proudly state that all the sounds included on it were derived only from animals. By derived he really means sampled, edited, re-pitched and processed to destruction; it's a record that tells you more about the addictive steamroller power of technology than the authentic voice of nature. Not that it isn't interesting for that. The sources credited for this track, 'Fish Wrap', are listed as killer and humpback whales, walruses, red drum fish, Atlantic croaker fish, French angel fish, striped sea robin, horned sculpin fish and both the smooth and northern puffer fishes.

[Bernie Krause & Human Remains, 'Fish Wrap' (excerpt), 1988]

[Flight of the Bumblebee]

And then there are insects. In the eleventh century novel, *The Tale of Genji*, the protagonist speaks at one point of playing a koto – quote – 'in concert with the cicadas, purposely using their chirruping as part of the accompaniment'.¹ A thousand years later the writer and wind player David Rothenberg is doing much the same thing, though radically updating the process with electronic technologies. He claims, in his book *Bug Music – How Insects gave us Rhythm and Noise* that insects were 'our original teachers of rhythm' – even going on to suggest that 'music evolved out of... millions of years of listening to bugs.' Though his book does bring together a useful overview of research into the sounds that insects make – and the way that they have been used and thought about by different cultures and in different times, it's more of a paean to insects than a serious argument. What remains is the obvious: yes, of course, insects – along with thousands of other things – have had – and continue to have – an influence on some aspects of human musicking. The rest, it seems to me, is just unnecessary hyperbole. On the CD that accompanies the book, Rothenberg offers a collection of interesting and inventive pieces. On most, he samples and loops and manipulates insect sounds and then plays along with them – or constructs loose compositions out of them, as one might with any sounds using today's technology – and indeed as The New Zealand film composer Graeme Revell did, some thirty years ago, on his 1986 LP *The Insect Musicians* – a record on which only insect sounds are used. It was also, in the manner of the times, far better documented in the accompanying booklet than Rothenberg's release, which is frustratingly uninformative. But, then, the motivations of these two musicians were very different: Revell wanted to build a whole music from recorded insect sounds alone, while Rothenberg's wanted to connect the insect and human worlds – and, indeed, on one or two tracks he does just that, heading out to a field and jamming, like Genji, with the cicadas. But mostly, like Revell, he treats and processes and reorganises recorded insects, which he, or someone else, had



[Cornelius Cardew and Scratch Orchestra, *The Great Learning*, 1971]

collected earlier; it's interesting, and it works – but the aesthetic is purely human. In the following excerpt, he constructs a bed of snowy tree crickets (though he doesn't explain, unfortunately, how much is natural and how much processed) over which the overtone singer Timothy Hill vocalises. It was recorded in 2013.

[David Rothenberg and Timothy Hill, 'Chirped to Death' (excerpt), 2013]

[Wind in grass, trees, crickets]

In various cultures, plant materials are used as percussion instruments – gourds, scrapers and rattlers for the most part. And, unsurprisingly, John Cage didn't turn down the opportunity to write for them – adopting the 'Cartridge Music' principle and amplifying them with transducers. 'Child of Tree' came first – in 1975 – after one of Merce Cunningham's dancers brought in a cactus and demonstrated the sounds the spines made when plucked. It was written for a single performer – and the published score consists of a few scrawled pages with a lot of deliberate, crossings out – the function of which is, first, to guide the performer in the selection of ten instruments – all of which must be plant materials, such as leaves, cacti or branches – and second, how to divide a fixed duration of eight minutes into several sections by means of the I-Ching. No content is specified and the score merely stipulates: 'Using a stopwatch, the soloist improvises, clarifying the time structure by means of the instruments. This improvisation is the performance.' A year later Cage published 'Branches'. An extension and variation on 'Child of Tree', it's for several players, and is longer – separating the different sections with substantial silences. Here's an excerpt from a solo version of the piece as interpreted by Robyn Schulkowsky in 2012.

[John Cage, 'Branches' (excerpt), 1976]

And here's one of my own cactus solos, from a concert in 2009.

[Chris Cutler, 'Echinopsis Mamillosa' (excerpt), 2009]

With stones, we are in border territory. Parts of this topic will surface in other programmes – if we ever get there – so here I'll just mention one or two broad areas of interest – and give a few examples of cases in which stones have played an important compositional role.

Stones have probably been involved in musicking since this activity emerged 60 to 30 thousand years ago – which is when similar phenomena, such as cave-art, jewellery and ritual burial also appeared – and it's generally agreed that music – which is to say the making of coordinated, non-linguistic, intentional sounds – probably emerged at the same time. Stones also populate the researches of paleo-musicologists and archaea-acousticians in the form of ringing rocks, lithophones and investigations of the acoustic qualities of cave-sites, stalactites, stalagmites and stone circles.

In 'The Great Learning' – a six or seven hour work in seven paragraphs based on the writings of Confucius and scored for a large ensemble of both high and low formal musical skills – the British composer Cornelius Cardew calls for an organ and a chorus of singers, who also play stones and whistles. Stones because, cut and tuned, they were often used in Chinese classical music. 'Paragraph One' was a commission from the John Alldis Choir, who premiered it in 1968, and it was in gathering an ensemble to play for the premiere of 'Paragraph 2' – which had been booked in the cavernous Roundhouse in London – that the seeds of the Scratch Orchestra were first sown. Although the piece had been rehearsed by a group of around twenty, it was clear that in order to fill the roundhouse with sound – as the piece required – a lot more players would be needed, so a pool of friends and students was recruited to make up the numbers. It was this pool, Cardew said in a BBC interview later, that became the Scratch Orchestra – and went on to perform, amongst many other things, most of the other Paragraphs of 'The Great Learning'. Here is the beginning of a performance of 'Paragraph One' – played by the Scratch Orchestra – at London's Queen Elizabeth Hall, in 1982.

[Cornelius Cardew and Scratch Orchestra, 'The Great Learning, Paragraph 1' (excerpt), 1969]



[Christian Wolff, *Stones*, 1968]

At more or less the same time, the American composer Christian Wolff wrote 'Stones' which, unlike Cardew's score, was unstructured and without given material. It was more like a Fluxus piece, in fact – written as a set of very open instructions, to wit: 'Make sounds with stones... using a number of sizes and colours... for the most part striking stones with stones but also... bowed for instance or amplified. Do not break anything'. In this version, there are four players.

[Christian Wolff, 'Stones' (excerpt), 1968-71]

The New Zealand composer Philip Dadson, while studying in London, had been a member of that first incarnation of the Scratch Orchestra – while Cardew was working through 'The Great Learning'. And on his return to New Zealand a year later, he set up the Scratch Orchestra (NZ), which in 1974 renamed itself From Scratch. Like many original Scratch Orchestra members, Dadson went on to work routinely with household objects, industrial objects and invented instruments – which he deployed easily alongside more conventional resources. Here's an excerpt from his 1995 installation piece 'An Archaeology of Stones', which is scored entirely for stones.

[Philip Dadson, 'An Archaeology of Stones' (excerpt), 1995]

All the stones we've heard so far have been struck or rubbed together, but from the world of sculpture – and by a route that so far none of the surviving practitioners has been able to elucidate – a method of scoring deep parallel grooves into smaller stones was discovered – or possibly rediscovered – that allowed them to be played, like wine glasses, with moistened hands – a bit as you might stroke a cat – to produce ethereal and otherworldly sounds. This practice seems to have originated with the German sculptor Elmar Daucher, whose work in this area dates back to the beginning of the seventies. He was followed, about a decade later, by Arthur Schneiter in Switzerland, and Pinuccio Sciola in Sardinia. Of the three, Sciola is the most sonically diverse, with works designed, variously, to be struck, scraped and stroked. Here, in a documentary made in 2010, he demonstrates all three approaches.

[Pinuccio Sciola, 'Sounding Stones', 2010]

From the musical side, it was the German composer Klaus Fessmann who took up the cause of stroked lithophones, directly inspired by Elmar Daucher's original researches. With his son Hannes, he went on to perfect the designs of a wide variety of wet-stroked singing stones – intended for both musical and therapeutic purposes. In 1997 he formed the Ensemble Klangstein, with eight sounding stones, cello, electric cello and a percussion set made from rocks and water. And in 2012, the electric cellist and composer Friedemann Dahn composed 'Aura', for sounding stone and string orchestra; here's a short excerpt from it, featuring mostly the stone.

[Friedemann Dahn, 'Aura' (excerpt), 2012]

And for the stone alone, here's Hannes Fessmann.

[Hannes Fessmann, unidentified track, 20xx]

As Cornelius Cardew recognised, Chinese traditional music has long made use of stones, referenced here by the Chinese composer Tan Dun in his multimedia work 'The Map', written in 2002 – for cello, video and orchestra.

[Tan Dun, 'The Map' (excerpt), 2002]

And we will be following Tan Dun into our next programme, which looks at water, ice, fire, air and, of course, polystyrene

[Gregorio Paniagua, 'Anakrousis', 1978]

[X-Ray Spex, 'Oh Bondage! Up Yours!' (excerpt), 1977]

1 Cited in Sound in the Japanese Garden by David Toop in Shakkai Vol 8 No 4. 2002.



[Pinuccio Sciola, *Sounding Stones*]

02. Notes

On length and edits.

The purpose of these programmes is to give some practical impression of the probes we discuss. This necessitates for the most part extracting short stretches of music from longer wholes, which, of course, compromises the integrity and disrupts the context inherent in the original works. I have also, on occasion, edited different sections of a longer work together, better to illustrate the points under discussion. So the examples played in the programmes should not be confused with the works themselves. Wherever the word (excerpt) appears after a title in the programme transcript, this indicates that what follows is an illustration, not a composition as it was conceived or intended. If something catches your ear, please do go back to the source.

Notification

If you want to be notified when a new probe goes up, please mail remegacorp@dial.pipex.com with subject: Probe Me.

03. Acknowledgments

Special thanks to Peter Cusack, Hollis Taylor, John Tilbury, Bart Hopkin, Mike Cooper, David Toop, Mike Adcock.

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