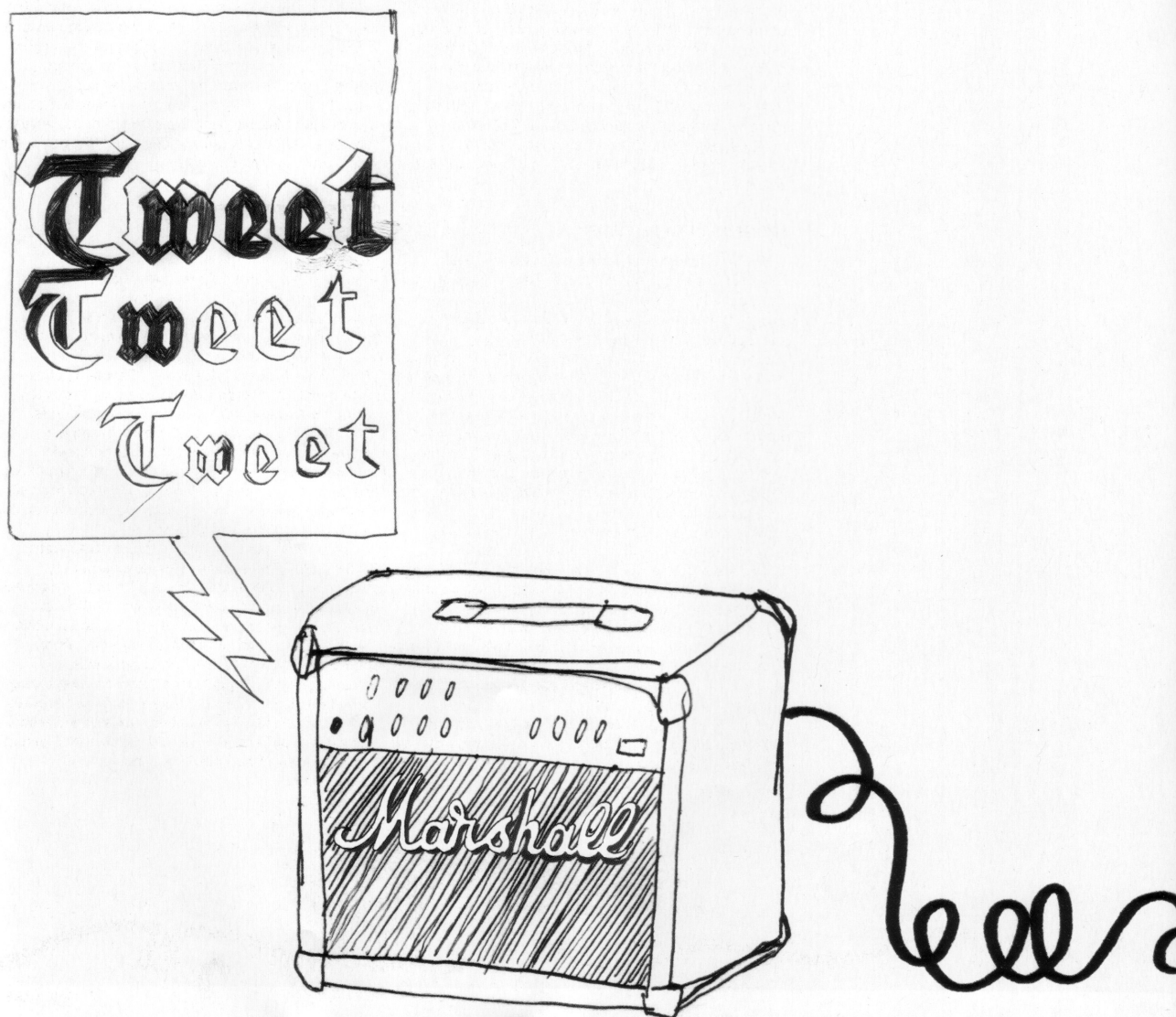


MAKING THE NATURE SCENE

A QUARTER OF A CENTURY AGO, R MURRAY SCHAFER CALLED FOR THE HUMAN EAR TO BE RETUNED TO THE PLIGHT OF A FADING PLANET, THUS OPENING THE WAY FOR A DIVERSE SET OF APPROACHES, DISCIPLINES AND ORGANISATIONS DEDICATED TO THE NEW 'SCIENCE' OF ACOUSTIC ECOLOGY. PHIL ENGLAND PICKS UP THE ECHOES OF SCHAFER'S VISIONARY WORK IN THE MUSIC AND SOUNDSCAPES OF HILDEGARD WESTERKAMP, PETER CUSACK, DOUG QUIN, DAVID DUNN, THE EARTHEAR LABEL AND MORE. ILLUSTRATION: MAT REYNOLDS



25 years ago, R Murray Schafer, a composer and music professor at Vancouver's Simon Fraser University, despairing of the world's increasing clatter and klang, sounded a ringing alarm. "The soundscape of the world is changing," declares the opening paragraph of his 1977 book, *The Tuning Of The World*. "Modern man is beginning to inhabit a world with an acoustic environment radically different from any he has hitherto known. These new sounds, which differ in quality and intensity from those of the past, have alerted many researchers to the dangers of an indiscriminate and imperialistic spread of more and larger sounds into every corner of man's life. Noise pollution is now a world problem. It would seem that the world soundscape has reached an apex of vulgarity in our time, and many experts have predicted a universal deafness as the ultimate consequence unless the problem can be brought quickly under control."

Featuring "earwitness" accounts from literature, Schafer's book charts the change in the natural soundscape through the ages, from pastoral idyll to the 20th century's industrial overload. But Schafer's book also reads as a bold and visionary manifesto, one whose call to arms has been taken up by a surprisingly wide range of soundscape artists, sonic documentarists, acoustic ecologists, researchers and environmental activists. It is responsible for inspiring two generations of acoustic ecologists and sound artists and setting in motion arguments that are still being worked through today: what is the health of the soundscape? Why do people like some sounds more than others? Is there a value in documenting disappearing sounds? How can sound artists usefully engage with the pressing environmental issues of the day?

DISCIPLINE AND REPLENISH

Practically, what Schafer proposed was a school for acoustic design studies – a kind of audio equivalent of the Bauhaus. His book sketched out an initial programme covering various methods of training the ear such as listening exercises, undertaking 'soundwalks' and keeping sound diaries, the analysis of different soundscapes, how imbalances such as the overabundance of artificial, technological, continuous and low-frequency sounds, and a lack of quiet and natural, discrete and higher frequency sounds, might be detected and corrected; and suggested how the results of these researches could be applied to the design of modern appliances, buildings, sound gardens and quiet spaces.

"The best way to comprehend what I mean by acoustic design," he wrote, "is to regard the soundscape of the world as a huge musical composition, unfolding around us ceaselessly. We are simultaneously its audience, its performers and its composers... The final question will be: is the soundscape of the world an indeterminate composition over which we have no control, or are we its composers and performers, responsible for giving it form and beauty?"

When *The Tuning Of The World* was first published, no less a figure than Marshall McLuhan suggested that this poetic, evocative and impassioned text should be

given "top priority". It was also praised by astronomer and author Carl Sagan as a "consciousness-expanding experience". 25 years on, and retitled *The Soundscape: Our Sonic Environment And The Tuning Of The World*, the book still challenges us to consider the health of the planet itself.

Schafer's propositions were not just theoretical. In the late 1960s, he initiated an educational and research group at Simon Fraser University (SFU) in Vancouver called the World Soundscape Project (WSP). The group's projects included a survey of noise legislation from around the world, a cross-Canada recording tour which resulted in a series of programmes for CBC radio, a European lecture and workshop tour, an international car-horn count, and a research project that published detailed studies and recordings of the soundscape of five European villages.

After this initial flurry of activity, the organisation wound down in 1975 when Schafer left SFU, retreating to the relative isolation of Ontario's Indian River, to compose outdoor ritual music theatre works. Now 78, Schafer is still busy elaborating the art he calls the Theatre Of Confluence, which culminates in the *Wolf Project*, a week long participatory event held every August deep in the Canadian wilderness.

WSP member and digital music composer Barry Truax continues to run a course in Acoustic Communication at SFU, and has published two books on the subject. But apart from such isolated cases, the project, lacking Schafer's vision and energy, lay dormant for 15 years, until Hildegard Westerkamp – a member of the original World Soundscape Project and for some years Schafer's assistant – started preparing the ground for a new international movement.

ON THE WAY TO THE FORUM

In 1991, Westerkamp set out some of her "thoughts, ideas and visions" for the future of the world soundscape movement in the first issue of *The Soundscape Newsletter*. "This turning of the negative spectre of a polluted sound world into a vision where the sonic environment becomes a place for renewal and creativity has been the genius of the World Soundscape Project," she wrote. "Beyond fighting noise pollution, the task of sound ecologists is to design healthy and attractive sonic environments, sonic places. Continual sensitisation of the ear, creative town planning, legislative action (noise abatement regulations), the design of acoustic parks and playgrounds, and the innovative preservation of worthwhile sounds of past and present may be among the means to achieve such ends."

The following year, the World Forum for Acoustic Ecology (WFAE) was formally established at an international conference in Banff, Canada, organised by Westerkamp and attended by over 100 people representing disciplines from education to architecture and from radio and film to psychology and urban planning. "There have been great advances," commented Westerkamp when I spoke to her during her recent visit to the UK. "Now email is widespread, we have a website and an international membership. Many of the projects that we did with the WSP would be much easier to do now. If we instituted an



Soundscape Project members in Scotland, 1975.
Right: R Murray Schafer, Jean Reed, Bruce Davis,
Huse, Howard Broomfield

international research project now, we could just put out a call on the web. We act as an umbrella organisation for affiliated groups in the UK and Ireland, Canada, Switzerland, Australia, Finland and we have a strong connection with a Japanese group."

Besides a substantial website, WFAE's excellent new journal *Soundscape* is the organisation's principal point of focus; themes of recent issues have included the imperative of listening, the importance of silence, 'blind' listening and education. Meanwhile, encouraged by the WFAE, various affiliated national groups develop their work in education, research, publishing, preserving natural soundscapes and places of quiet and the design of healthy acoustic environments.

I ask Westerkamp if she thinks there is any particular reason why the idea of sound ecology first arose in Vancouver. "We've often talked about that," she says. "There's two issues. The first is the Canadian wilderness and the Canadian North, which is in our consciousness. There's a huge silence out there. And when you experience that silence against what urban environments are like, there's a major difference. I was walking through London today and I thought, my god, how far away the Earth is at King's Cross. When you come to Vancouver, even though it's a large city, the Earth is still very close. And that makes a huge difference. Also, at that time, Vancouver, and Canada in general, was a very interesting place culturally. You weren't always presented with cultural productions around you. There was room to invent and do new things. The 70s were very experimental anyway. There were connections between the student movement, the revolutionary and the hippy thing. There was Vancouver Co-operative Radio. There was [government] money for these things."

DOING IT IN THE FIELD

On the other side of the world, and nearly 30 years after the WSP's *Vancouver Soundscape* LP documented the changing sound environments of the capital of Canada's western coast, London based sound recordist and improviser Peter Cusack has put together a CD collection of 40 'soundmarks' (one of R Murray Schafer's terms, denoting a sound that is of particular significance to a local community) nominated by Londoners. Since 1998, Cusack has been asking the city's inhabitants: "What is your favourite London sound, and why?" To date he has received more than 200 replies.

The *Your Favourite London Sounds* CD features a long list of some 160 of these responses: "swifts wheeling around the rooftops... I love it when human voices break through the traffic... roar of the terraces when Fulham scores... dawn chorus at Abney Park... station announcements at Waterloo East... British Rail between Gospel Oak and Barking... glass smashing... silence - eerie and disturbing... Leicester Square, the mix of music of the street buskers... sound of trains passing through... night sounds on Hampstead Heath... distant propeller aeroplane at night when everything else is quiet... seagulls at St Pancras station... fountain in Victoria Park at 2am... coffee machines... rare moments of silence like a dull roar,

which appear when everything around you goes quiet... guys coming out of a Nigerian bar called 56 in Peckham High Street at three or four in the morning chatting happily in Nigerian..."

"A lot of the sounds people chose were intimately

connected with their everyday lives," explains Cusack. "One guy, a motorbike fanatic, loves the roaring of motorbikes, but then that's his huge interest in life. He likes to stand there as they all roar off because the sound excites him immensely. A lot of the sounds were sounds of anticipation. Somebody liked the sound of letters falling on the hallway floor when the postman came. Someone living in a student residence voted for the sound of "onions frying in my flat". I made a recording of onions frying in my flat, but it had nothing to do with what she was talking about, which was sociability and community."

Cusack became aware of the WSP in 1975 when David Toop summarised their work in the London Musicians' Collective magazine *Musics*. Although some of the ideas were in the air anyway, he says, "It did help to realise that there was a much more substantial initiative going on in Canada. Schafer was the only person who was writing with any sort of seriousness about it".

Yet today, Cusack is also critical of certain aspects of Schafer's original approach. "One of the things that bothered me about the WSP was that they never asked people about their sound environment. They made a lot of assumptions from a musical point of view about what people liked or didn't like about the soundscape. Sounds that soundscape musicians moan about, like traffic and aircraft noise - for some people, those are their favourite sounds. In fact it was the sounds of London's transport - the trains and buses - that were nominated most frequently. Also, people don't always perceive loud noises to be bad, and some have said that particular loud sounds are their favourites. Noise becomes a problem when it starts to irritate on a personal level, or when it completely blocks out other stuff. It's less to do with the decibel level and more to do with what the sound is and how much control one has over it. So although most legislation is aimed at sounds that are so loud that they physically damage your health, there is also a growing body of legislation aimed at neighbour noise.

"There are times," he continues, "when a plane in the distance, particularly if it's a propeller engine, is a really nice drone, and there are times when you have constant jets going overhead, which make you want to scream. I think trains generally sound pretty nice. What I personally object to is traffic noise - this broadband spectrum which prevents you from hearing everything else. There are many reasons for getting people out of their cars or trucks, and their effect on what we are able to hear is certainly one of them."

THE BRITISH UMBRELLA

Cusack is a member of the recently formed UK & Ireland Soundscape Community (UKISC), which is affiliated to the WFAE umbrella. Since its inception in 1998, the UKISC has organised an international conference and published two issues of a journal, *Earshot*, while its members are busy on a variety of

PHOTOS: COURTESY BARRY TRUAX (BOTH WSP); PETER GRANT/EARTHEAR (WESTERKAMP)



The WSP at Simon Fraser University, Vancouver, 1973. Left to right: Schafer, Davis, Huse, Barry Truax, Broomfield.
Hildegard Westerkamp recording in Rajasthan, India

individual projects. Gregg Wagstaff, the organisation's representative to the WFAE, lives in Scotland and has recently completed *The Sounds Of Harris And Lewis*, a documentary project based on the soundscape of the two Outer Hebrides islands, which culminated in the release of a triple CD and book package.

Wagstaff's aim was to document the changes in the islands' soundscape with the involvement of local people. It's a very different sound environment compared to London's, largely due to the absence of constant background traffic rumble, but also due to the distinctive sounds of traditional crafts and skills and the sound of the local Gaelic tongue.

"On the one hand, the isles are still a source of tradition in terms of the Gaelic language and culture and the crofting tradition," explains Wagstaff, "and on the other hand, it's completely modern in terms of 'telecottaging' – working with new technology from home. Taken as a whole it's a very quiet place, although Stornoway town centre probably contains as much noise as any other Scottish town."

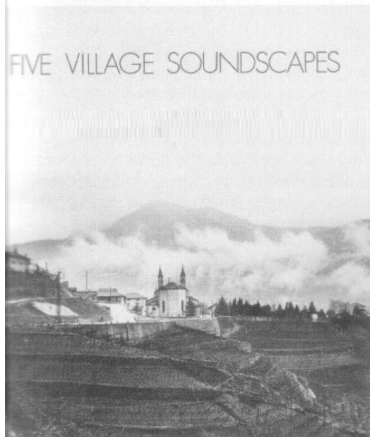
The CDs document sounds in transition or undergoing extinction. While the noise of mechanical weaving looms is still fairly common, ancient crafts such as peat-cutting and crofting, with their unique attendant sounds, are in decline. Wagstaff's recordings also preserve the cries of rare bird life, such as the corncrake, which has not been seen on the islands since the year after he captured its voice on tape.

"Talking about what sounds have disappeared, what sounds have replaced them and the reasons behind those changes, opens up larger social, economic and political questions quite easily," asserts Wagstaff. "Whereas if you try to talk about environmental or ecological politics from the outset, that would seem quite awkward. On Harris and Lewis, the main pressures include economic policies and market forces, agricultural legislation from Europe, the extension of transport networks, the opening of the airport, and tourism."

As Wagstaff readily acknowledges, helping local people to effect change to their soundscape – and beyond that, their lives and environment – is beyond the scope of the lone acoustic ecologist. But the project has achieved some tangible results, including the permanent provision of recording equipment and skills for the islanders.

Indeed, local people were key to the realisation of *The Sounds Of Harris And Lewis*. Besides their nomination of soundmarks, local people contributed to the resulting CDs in a variety of ways. One group recorded and composed their own sound portrait of the islands; schoolchildren read their sound diaries and haikus; and three local experts on the islands' social and natural histories recorded 'soundwalks'.

A follow-up project is now underway in Dartmoor, South West England. Wagstaff is also keen to get UKISC involved with the government's £13 million project to map the sound levels of the entire UK – one of his ideas is to conduct a study taking individual perceptions and experiences into account, rather than just a crude register of decibel levels. As an indication of what can be possible with sufficient vision, Wagstaff cites the long-established Soundscape Association of Japan's involvement in a national



No. 4, The Music of the Environment Series
 Edited by R. Murray Schafer
 WORLD SOUNDSCAPE PROJECT

World Soundscape Project publications including original
Vancouver Soundscape LP (1973) and a copy of the
Soundscape Newsletter

scheme where 100 soundmarks were identified through consultation with villages. Local groups have been encouraged to preserve these soundmarks for future generations.

THE CALL OF THE WILD

The number of commercially available environmental recordings is currently booming. You only have to visit the website or view the printed catalogue of mail order company EarthEar to get an idea of the range and quantity of material on offer. The whole world is being mapped for sound, from the ice shelves of Antarctica to the game parks of Zimbabwe; from the prairies of the United States to the steppes of Tuva.

EarthEar founder Jim Cummings – who also runs a parallel sound ecology website which carries reports on how sound is impacting on the natural environment, and is considering setting up a US branch of the WFAE – foresees the sector continuing to flourish. “Over the next few years, I can imagine soundscapes becoming another genre that people with wide-ranging tastes will discover,” he writes in a recent press release. “As more folks hear this, I think it’ll grow to the point where many people own a few titles, maybe develop some personal favourites among the artists, and pop on a soundscape CD a couple of times a week, as part of the mix of music and other media they enjoy including in their lives.”

The EarthEar label’s most recent release is American composer, field recordist and naturalist Douglas Quin’s *Caratinga*, a CD he made in Brazil’s fast disappearing Atlantic Forest. The forest is one of the world’s top five biodiversity hotspots, having been reduced to one tenth of its original size due to logging for hardwood and use of the land for cash crops. Nearly all of its unique denizens are threatened with extinction, “clinging to this forest like shipwrecked survivors on a raft”, as primatologist Karen B Strier dramatically puts it. Alongside birds and amphibians, *Caratinga* documents the sound of threatened primates – brown howler monkeys, buffy-headed marmosets, black-capped capuchin monkeys, and the northern muriqui or woolly spider monkey.

“Time is running out for many species,” urges Quin. “It is important to me that, through an acoustic lens, people listen to what other voices and soundscapes may tell us. We have such a dim understanding of sonic function in the world, that it is essential to bring people at least into a visceral appreciation of ‘the call of the wild’. Only then can they come to a more rational knowing and then, ideally, be in a position to act responsibly in their own long-term self-interest. It is deeply disturbing to consider that a number of places where I have recorded are gone forever – their voices silenced.” This is not a case of a Western artist profiting from a less fortunate country’s misery: Quin is donating all revenues due to him from sales of the CD to the Caratinga Biological Station, which carries out conservation work in the area.

Another of Quin’s CDs, *Antarctic* (1998), takes us to the frozen ends of the Earth to experience the playfully expressive sounds of Emperor penguins, the strange shouting/retching dialogue between mother and pup Weddell seals, the remarkably subdued

sounds of a 16,000 strong colony of Adelie penguins and the sound of a glacier creaking and groaning. The recording, executed with the finesse applied by that other great documenter of natural sonics, Chris Watson, serves to focus on the growing reality that, despite the general absence of human life in the Antarctic, it is at the polar cap that the impact of human behaviour is being most acutely felt. In March this year the 500 billion remaining tonnes of the Larsen B iceshelf of the Antarctic Peninsula collapsed because of accelerated local warming. It was, according to the US government’s Ice Centre, “the largest single event in a series of retreats by ice shelves in the peninsula over the last 30 years.”

In the face of such enormous and visible climate change, what role can acoustic ecology usefully perform? Quin is both pragmatic and positive on the question. “I have become more convinced that the crisis is, in effect, a crisis of culture,” he says. “The idea of ‘nature’, and its objectification, is largely a social/cultural construction, or mythic fabrication. The role that acoustic ecology can play is to help bring attention to a different mode of knowing or reckoning the world around us, through listening and sounding. We live in a culture that privileges print and that values a visual imperative: ‘Make sure you get that in writing’; ‘Seeing is believing’. Culturally speaking, we are deaf to one another and to the other voices with whom we share the planet. Valuing silence and valuing music – in its broadest embrace, not merely as entertainment and consumer commodity – lies at the heart of a deeper humanity and humility.”

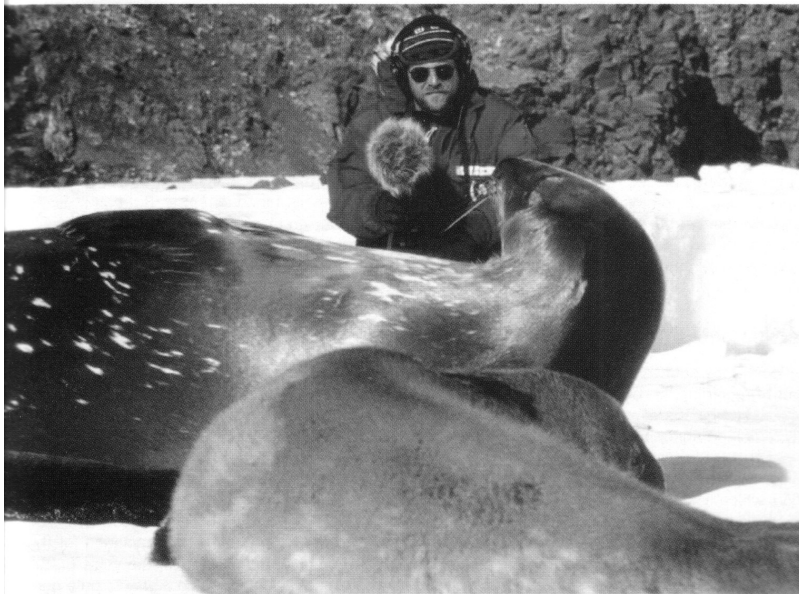
“The role of my music, sound recording, bioacoustic research, writing and radio programming is complementary to the important and necessary work in environmental activism being undertaken across the spectrum of public life by Greenpeace, Conservation International, and so on. The arts make us feel: they can be transformative and play a part in the efforts to question and change our habits. The humanities make us think: their role is to ask the pressing questions about who we are because, without some sense of critical historical self-understanding, we are truly lost.”

PROTEST AND SURVIVE

The anti-globalisation protests in recent years have demonstrated what happens when governments and international finance disregards the well-argued pleas of civil society. When thousands took to the streets of Seattle on 30 November 1999, electronic musician and sound recordist Christopher DeLaurenti was there to document the rousing festivity and direct action.

Writing in his diary of the event, “Recording In The Line Of Fire At The WTO” (see www.delaurenti.net), he says, “I was transfixed by the surging undertow of constant pounding percussion. As the march flowed up Pike [St], I savoured the passing parade of sound with a big grin... the unpredictable flow of the chants added to the sonic splendour... Between the walls of downtown’s cavernous buildings, the echoing drums donned a new thunder from colliding with the distant drums behind and in the vanguard. I now understand Charles Ives’s revelation of hearing two brass bands

PHOTOS: JIM BARKER (QUIN); COURTESY PARADIGM DISCS (CULSACK)



Top: Doug Quin recording Weddell seals, Antarctica. Below: Peter Cusack and Max Eastley go down to the woods

marching from opposite ends of town towards each other. Entranced and near tears, I was already dreaming of layering arcs and planes of sound using my recordings. I followed my ear, nothing more."

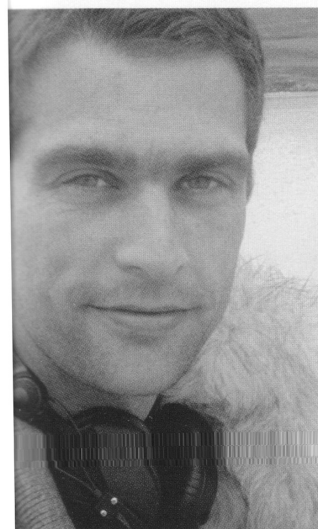
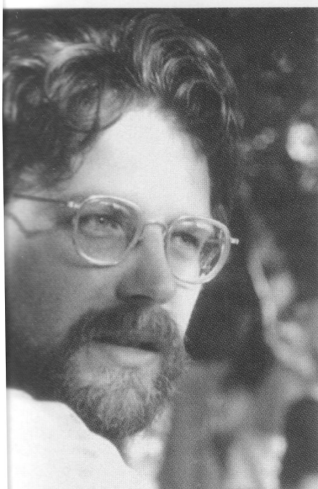
De Laurenti stayed with a group of protesters who were prepared to risk arrest in deploying peaceful, organised civil disobedience tactics. As protesters locked up crossroads with human chains, and blocked the delegates' entrance to the World Trade Organisation negotiations, the police responded with rubber bullets, tear gas, stun grenades and truncheons. With his boom mic in hand, DeLaurenti was targetted in the face with pepper spray, hit by three rubber bullets and was caught in a stampede during a police charge.

N30, the soundscape piece DeLaurenti constructed from the recordings made that day is edited into a continuous hour long piece but his recordings are otherwise untreated. There is a debate within the acoustic ecology community about how much to treat their source materials electronically, or 'distort' them into new compositional forms. To take some random examples: on two of his CDs (*Forests: A Book Of Hours* and *Before The War*) Douglas Quin mixes his own instrumental playing with field recordings; Spanish sound artist Francisco López argues for the aesthetic superiority of his treated field recordings which move far from the originals to approach pure sound (for example, *La Selva*, which uses recordings of the Costa Rican rainforest); and BBC sound recordist and onetime Cabaret Voltaire member Chris Watson has invited contemporary musicians including Christian Fennesz, Philip Jeck and Mika Vainio to remix his nature recordings for the new Touch CD, *Star Switch On*.

While the range of approaches is becoming more diverse and sophisticated, the essential practice of modifying and incorporating field recordings and sounds from nature and everyday life stretches back to the dawn of musique concrète in 1948, when Pierre Schaeffer began cutting up tapes of trains and street commotion. At its purist level, as an EarthEar aphorism puts it, "the voice of the planet is the muse", and the raw untreated sound is the desired effect – an attitude which reveals a suspicion about the practice of modifying or augmenting nature with fabricated sound add-ons.

Peter Cusack is aware of the distinction, and offers a route that can include both approaches. "I think the composition area and interest in the soundscape per se are diverging," he says. "They've both been around long enough for us to realise that these two areas are different, and I think it's time for us to get that sorted out. If you want to draw attention to the soundscape and the associated health, cultural and sociological issues and perhaps make changes for the better, then making a piece of music about it is increasingly tangential. Neither are right or wrong – it depends upon what you're trying to do or say. There are plenty within the electroacoustic community, for example, whose primary interest is, 'How can I use these soundscape recordings in my next piece?'"

These days Hildegard Westerkamp often processes recordings using digital technology and occasionally incorporates a spoken narrative. Her purpose, she says, is to draw people into the soundscape,



ists: David Dunn (top), Greg Wagstaff (below)

emphasising and directing the listener's attention to certain aspects of it. Back in the late 70s, Westerkamp produced a more naturalistic series of programmes for Vancouver Co-op Radio called *Soundwalking*, using her own voice to direct the listener's attention. "I was just out in the field, recording," she explains. "I often didn't know when I started where it would lead me – so it was quite a free flowing recording process. I saw myself as a mediator, like a sports commentator, but much, much slower. I would comment on aspects that the listener wouldn't know about – like the weather and the time of day – and give information to contextualise the sounds."

THE GREAT OUTDOORS

There are countless sounds in the world which, until the advent of recording, and in particular the sophisticated techniques of the professional location recordist, remained absolutely inaudible to the human ear. Not because of low volume, nor invisible frequencies, but because they were made by animals and insects which it was previously impossible to approach in the wild, close enough to hear.

Modern day field recordings are beginning to reveal a staggering range of sounds produced by the animal world. EarthEar's double CD *The Dreams Of Gaia* contains Lang Elliot's recordings of green-winged teals coming in to land on water and briefly resembling a jet plane; Jean Roché's recordings of choruses of a variety of frog species; Bernard Krause's recordings of a family of mountain gorillas; and Kathy Turco capturing a young male whale trying out his remarkable range of soundmaking options. Chris Watson's two CDs for Touch, *Stepping Into The Dark* and *Outside The Circle Of Fire*, invest many of his recordings of vultures, hippos and the birdlife of English graveyards with a quasi-mystical sense of the uncanny. David Dunn, a New Mexico based recordist, documents the underwater sounds of insects in

freshwater ponds. On his 1992 CD, *Angels & Insects* (?What Next?), a constant dense clicking suggests a tightly interacting mass of activity. Dunn occasionally slows the tape down slightly to make it more comprehensible to human ears.

Dunn discovered this subaquatic world by chance, then spent two years recording it. In the sleevenotes he writes: "The timbres of these sounds are obviously magnificent, a tiny orchestra of homemade percussion seemingly intoxicated by the infinite diversity of audible 'colours', but what strikes my ear most readily are the rhythmic structures. They appear to consist of an order of complexity greater than most human-made music, rivalling the most sophisticated computer composition or polyrhythms of African drumming. Amid a background hum of distant chatter the persistent clicks of several different insects pulsate. Many of these sounds are continuous but elastic, the constancy appears sensitive to the assertions of others. The fabric is punctuated by the intermittent cries of something unseen or the wheezing of larger beetles carrying their air supply between their legs."

Dunn is ambivalent about the value of the current glut of commercially available field recordings. "I have

mixed feelings," he says. "Part of this is the idea of being able to expand access to the non-human world in a way that is non-destructive; the other side of it is that it ends up just being another level of exploitation and commodification of the environment, in the same way that we've commodified every other aspect of it."

Listening alone – decontextualised and divorced from the original context of a unified, multi-sensory experience – paradoxically enhances the experience of 'blind' or heightened listening. But can it ever be a substitute for firsthand, multisensory experience? EarthEar's Jim Cummings recognises these contradictions. "The world outside your door is indescribably more vivid than any recording," he observes, writing in a US journal. "Though there may be fewer, less 'dramatic' sounds there, you are immersed in those sounds, they surround you, penetrate your skin, and move invisibly through your heart and spirit, in ways these recordings never will."

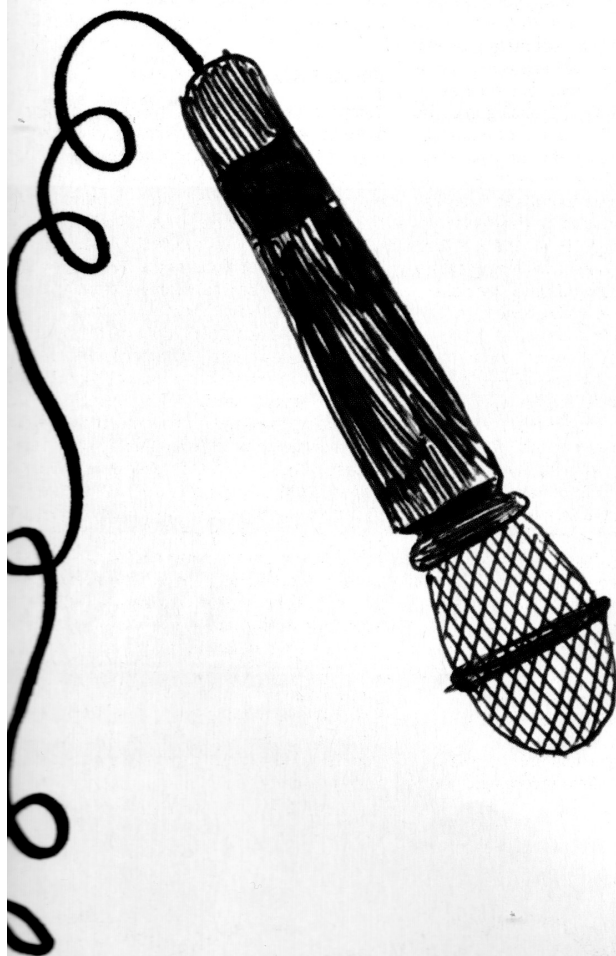
Cummings's hope is that an appreciation of different environments through sound will encourage people to do something about the wider issues. "It's about getting folks to value sound. This appreciation can be one more impetus to NOT let habitats die out," he says. "The hope of these recordists is that by the end, we have a deeper appreciation for the rich variety and abundant unity of the voice of our planet. Perhaps we'll even find a way to help our voices blend in more graciously, more respectfully, more receptively; from there, we may find our way back to old ways that believe the whole story is about actively nurturing relationships with all of life."

CDs ARE KILLING THE PLANET

Compact discs come with their own environmental footprint. A recent study, commissioned by a UK organisation called Future Forests, calculated the carbon dioxide emissions produced by the manufacture and distribution of the average CD housed in a jewel case to be 1.164 kg. One tree, over

its lifetime, will offset the CO2 emissions of 500 CDs. To offset the emissions of the 125 million CDs sold in the UK every year would require planting a quarter of a million trees. Add to that the ultimately unsustainable ecological footprint of the technology involved, and at worst, music consumption itself becomes a form of sound tourism that is accelerating the destruction it seeks to document.

According to Hildegard Westerkamp, "Listening is the fundamental on which everything else is based. Access to quiet is healthy, even a basic human right." Fittingly, R Murray Schafer's *Tuning Of The World* ends by arguing for the recovery of silent contemplation which, the author suggests, disappeared with the last of the "great Christian mystics" at the end of the 13th century – forgetting, perhaps, the silent group sitting of the Quakers and Zen Buddhists. "All research into sound must conclude with silence," he writes. "We need to regain quietude in order that fewer sounds can intrude on it with pristine brilliance... Still the noise in the mind: that is the first task – then everything else will follow in time... Through the practice of contemplation, little by little, the muscles and the mind relax and the whole body opens out to become an ear." □



RESOURCES

BOOKS

DAVID DUNN
 Why Do Children And Whales Sing? A Guide To Listening In Nature (EarthEar book + CD)
 DAVID ROTHENBERG & MARTA ULVAEUS (editors)
 Music & Nature (Wesleyan University Press book + CD)
 R MURRAY SCHAFER
 Soundscape: Our Sonic Environment And The Tuning Of The World (Destiny Books/Arcana Editions)
 R MURRAY SCHAFER
 A Sound Education (Arcana Editions)
 BARRY TRUAX
 Acoustic Communication (Greenwood Press)

RECORDS

PETER CUSACK
 The Horse Was Alive The Cow Was Dead (London Musicians' Collective)
 PETER CUSACK
 Your Favourite London Sounds (London Musicians' Collective)
 DAVID DUNN
 Angels and Insects (¿What Next?)
 CHRISTOPHER DELAURENTI
 N30: Live At The WTO Protest (Sonarmap)
 DOUGLAS QUIN
 Antarctica (Miramar)
 DOUGLAS QUIN
 Caratinga (EarthEar)
 BARRY TRUAX
 Islands (Cambridge Street)
 VARIOUS (featuring Gregg Wagstaff, Kaffe Matthews, John Levack Drever, Jonty Harrison, Michael Prime and others)
 Drift (DOR Infinity)
 VARIOUS (Breitsameter, Dunn, Elliot, Krause, Lopez, Quin, Watson, Westerkamp et al)
 The Dreams Of Gaia (EarthEar)
 VARIOUS
 Vancouver Soundscape 1972/1996 (Cambridge Street LP)
 GREG WAGSTAFF/VARIOUS
 The Sounds Of Harris & Lewis (Earminded)
 CHRIS WATSON
 Outside The Circle Of Fire (Touch)
 CHRIS WATSON
 Stepping Into The Dark (Touch)
 HILDEGARD WESTERKAMP
 Transformations (Empreintes DIGITales)

Many of these works are available by mail order from
 EarthEar, 45 Cougar Canyon, Santa Fe, NM 87505, USA
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