

Soundscape

VOLUME 14 NUMBER 1 | WINTER / SPRING 2014–2015

**CANACOUSTICA: CANADIAN PERSPECTIVES
ON ENVIRONMENT AND SOUND**

The Journal of Acoustic Ecology

Soundscape

The Journal of Acoustic Ecology

VOLUME 14 NUMBER 1 | WINTER / SPRING 2014–2015
ISSN 1607-3304

Soundscape is an English language publication of the World Forum for Acoustic Ecology (WFAE). It is conceived as a place of communication and discussion about interdisciplinary research and practice in the field of Acoustic Ecology, focusing on the inter-relationship between sound, nature, and society. The publication seeks to balance its content between scholarly writings, research, and an active engagement in current soundscape issues.

Editorial Committee

Sabine Breitsameter (ASAE), Jim Cummings (ASAE), Andrea Dancer (CASE), Ioanna Etmektoglou (HSAE), Gary Ferrington (ASAE), Nigel Frayne (AFAE), Phylis Johnson (ASAE), Meri Kytö (FSAE), Anthony Magen (AFAE), Jay Needham (ASAE), Katerina Tzedaki (HSAE), Hildegard Westerkamp (CASE), Eric Leonardson (WFAE Pres.)

Issue Editors

Guest Editor: Andrea Dancer, w/Eric Powell, Randolph Jordan, Editor-in-Chief: Phylis Johnson (ASAE), Emerita Editor-in-Chief: Hildegard Westerkamp (CASE), Editorial Assistant: Honna Veerkamp

Layout, Prepress & Cover Design

Andrea Schmidt

Cover Photo

Soundwalkers, University of British Columbia Soundwalk, 2007. Courtesy of Andrea Dancer. For more context, see article on page 4

Original Design and Soundscape Logotype

Robert MacNevin

Membership Committee

Atsushi Nishimura (JASE), John Drever (UKISC), Nigel Frayne (AFAE), Matthew Griffin (CASE), Meri Kytö (FSAE), Brandon Mechtley (ASAE), Andreas Mniestris (HSAE)

Mailing List and Distribution

The design, printing and distribution of this edition of the journal were made possible through membership contributions and donations.

Contents copyright © 2014–15, *Soundscape*.

The authors retain copyright on each article. Republication rights must be negotiated with the author. Credit for previous publication in *Soundscape—The Journal of Acoustic Ecology* must be given. Photographers, artists, and illustrators retain copyright on their images.

Opinions expressed in *Soundscape—The Journal of Acoustic Ecology* are not necessarily those of the Editors.

WORLD FORUM FOR ACOUSTIC ECOLOGY (WFAE)

The World Forum for Acoustic Ecology, founded in 1993, is an international association of affiliated organizations and individuals, who share a common concern for the state of the world's soundscapes. Our members represent a multi-disciplinary spectrum of individuals engaged in the study of the social, cultural, and ecological aspects of the sonic environment.

BOARD MEMBERS OF THE WFAE AND ITS AFFILIATES

World Forum for Acoustic Ecology (WFAE)

Executive Board: Eric Leonardson (President) (ASAE), Noora Vikman (Vice-President) (FSAE), Nigel Frayne (Treasurer, Past President) (AFAE), Christopher DeLaurenti (Secretary) (ASAE)

WFAE Affiliate Representatives: Leah Barclay (AFAE), Carmen Braden (CASE), John Levack Drever (UKISC), Tadahiko Imado (JASE), Andreas Mniestris (HSAE), Jay Needham (ASAE), Noora Vikman (FSAE), Andreas Mniestris (HSAE)

WFAE Communications: Phylis Johnson (Editor-in-Chief, *Soundscape*), Hildegard Westerkamp (Emerita Editor-in-Chief), Jon Pluskota (Editor, WFAE News Quarterly), Gary Ferrington (Webmaster)

Australian Forum for Acoustic Ecology

(AFAE) Leah Barclay (Chair, Webmaster, WFAE rep.), Anthony Magen (Secretary), Nigel Frayne (Treasurer, WFAE Rep.), Susan Frykberg (Membership), Jim Barbour (Member)

American Society for Acoustic Ecology

(ASAE) Stephan Moore (Chair), Phylis Johnson (Vice-Chair), Thompson Bishop (Secretary), Michael Bullock (Treasurer), Hethre Contant (Outreach Director), Brandon Mechtley (Web Director); Members-at-Large: David Aftandilian, Eric Leonardson, Jeremiah Moore, Jay Needham, Andrea Polli, Christopher Preissing, Jed Speare, Andrea Williams

CONTRIBUTIONS

Ideas for journal themes, proposals for new sections, as well as visual materials, are welcomed. You may submit either a proposal or a complete manuscript of a potential article to *Soundscape*.

The Editorial Committee would generally prefer to communicate with you beforehand regarding your idea for an article, or receive a proposal, or an abstract (contact information below). Please also download our *Guide to Contributors: Instructions for the Preparation of Materials for Submission to Soundscape* (PDF) on the WFAE Website at: www.wfae.net

Submissions. Texts can be submitted for the following sections in the journal: *Feature Articles*; Current Research: a section devoted to a summary of current research within the field; *Dialogue*: an opportunity for editorial comment from readers; *Perspectives*: reports of events, conferences, installations etc.; *Sound Journals*: personal reflections on listening to the soundscape; *Soundwalks* from around the world; Reviews: of books, CDs, videos, websites, and other media; *Students' and/or Children's Writings*; *Quotes*: sound and listening-related quotations from literature, articles, correspondence, etc.; *Announcements*: of events organized/sponsored by the WFAE Affiliates.

Please send correspondence and submissions to: *Soundscape—The Journal of Acoustic Ecology*, Department of Radio, TV & Digital Media, Southern Illinois University, Carbondale, IL 62901-6609 (c/o Phylis Johnson, Editor). **Email contact:** soundscape-editor@wfae.net

Canadian Association for Sound Ecology

(CASE) / Association Canadienne pour l'Écologie Sonore (ACÉS) Andrea Dancer (Chair), Eric Powell (Vice-Chair), Matthew Griffin (Treasurer), Carol Ann Weaver (Secretary), Carmen Braden (WFAE Rep.), Randolph Jordan (Blog Moderator), Raylene Campbell (Member-at-Large)

Suomen Akustisen Ekologian Seura (Finnish Society for Acoustic Ecology—FSAE)

Heikki Uimonen (Chair), Noora Vikman (Vice-Chair, WFAE Rep.), Meri Kytö (Secretary, Treasurer, Board Member), Pessi Parviainen (Board member); Deputy Board Members: Ari Koivumäki, Olli-Taavetti Kankkunen, Simo Alitalo

Hellenic Society For Acoustic Ecology (HSAE)

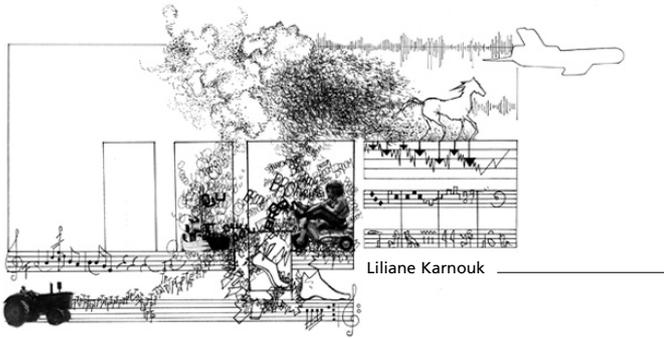
Kostas Paparrigopoulos (Chair), Andreas Mniestris (Vice-Chair and WFAE Rep.), Katerina Tzedaki (Secretary), Kimon Papadimitriou (Treasurer), Ioanna Etmektoglou (Advisor), Iannis Zannos and Alexandra Theogianni (Member reps.)

Japanese Association for Sound Ecology

(JASE) Tadahiko Imada (Chair), Atsushi Nishimura (Secretary/Treasurer)

United Kingdom & Ireland Soundscape

Community (UKISC) John Levack Drever (Chair, WFAE Rep.)



Soundscape

The Journal of Acoustic Ecology

VOLUME 14 NUMBER 1 | WINTER / SPRING 2014–2015

Contents

Contribution Guidelines . . .inside front cover

GUEST EDITORIAL

Canacoustica: Chinook, Sirocco & Currents in Flux by Dr. Andrea Dancer. 1

REPORT FROM THE EDITOR,
PHYLIS JOHNSON. 2

REPORT FROM WFAE PRESIDENT,
ERIC LEONARDSON. 3

FEATURE ARTICLES

Listening as Reciprocity:
Heidegger's Appropriation in *Being-Time*
by Dr. Andrea Dancer 4

Toward a Sound of Place: Sound,
Mapping and Aural Character
by Eric Powell 9

Cryophonics: Re-Performing
the Ice Songs of the Canadian Sub-Arctic
by Carmen Braden 13

The Bell Tower of False Creek:
Unsettling the Soundscape of
Vancouver's Burrard Bridge
by Dr. Randolph Jordan 17

Sound in the Land – Music &
the Environment: A Festival Celebrating
the Earth
by Dr. Carol Ann Weaver. 21

REVIEWS 24

Jennifer Schine's film documentary
Listening to a Sense of Place and radio
documentary *The End of the Line*
by Giorgio Magnanensi. 24

Barry Truax's CD Album
The Elements and Beyond:
Soundscape & Electroacoustic Works
by Tyler Kinnear. 26

MEMORIAL: TRIBUTE TO PETER GRANT. 27

Membership Infoinside back cover

Guest Editorial

SYMPOSIUM – *Canacoustica: Chinook, Sirocco & Currents in Flux*

This winter and spring are like no other. In the far north, the silence of missing icebergs, groans and creaks of tardy ice fields, and the reverberation of glacier walls sheering disrupt ancient requisites in startling ways. In the east, winter borrows its lost measure from the north – deep freeze and deep snow relentlessly. In the west, winter is a whisper and early summer cuddles early spring. The south creeps steadily northward. In this instability, sound ecology's diverse local and global concentrations herald extraordinary planetary alteration. In rural and urban soundscapes, we listen and wonder at what was, what is, and what is coming – to how we are shaped as planetary beings, acoustic ecologists, researchers, artists and thinkers in our uniquely local sensibilities and global iterations. Synergies and discourses emerge that are like unanticipated winds and divergent ocean currents, like weather and seasons in flux.

Likewise, the Canadian Association of Sound Ecology (CASE) board members from different regions, backgrounds, and concentrations across this expansive terrain come together to share their thinking and work in acoustic ecology for this issue of *Soundscape*. The lineages from which these works derive are not limited to Canada, but are nevertheless innate to the now global fascination with acoustic ecology and all its practises. Initially, the symposium's aim was to collect articles on sound and the environment, but unanticipated conversations emerge among articles that can be construed as a collective ethos. Within this ethos, listening clusters around mapping, phenomenological, nature and community-driven methodologies. Consistently, listener-to-soundscape edification interrogates these methodologies and opens them to the imperative of lived experience – which finds different means of expression such as artistic and musical compositions, poetics and invocations, gatherings, serendipitous encounters with others and ever-present self-sentience.

Methodologically detailed, Eric Powell's exploration of aural map-making, "Toward a Sound of Place: Sound, Mapping and Aural Character," questions what constitutes representations of physical space and attendant listeners. His work interrogates the implications of aural cartography through space and place theory and a multi-year research project recording different acoustic environments across the province of Saskatchewan. This work inspires musical compositions that subsequently lead to reflections on how the lived experience of sound and mapping inform processes and outcomes. Also intent on mapping, Randolph Jordan's piece, "The Bell Tower of False Creek: Unsettling the Soundscape of Vancouver's Burrard Bridge," takes readers intimately into methodology as enacted in the field through a narrative recounting of his work on the occasion of the 40th anniversary of the World Soundscape Project in 2013. As a field recordist and researcher, Jordan delivers a perceptive unfolding of the practice of soundscape research as lived practice and as an example of writing acoustic space and place that takes up Powell's questions about lived research. While collecting recordings of the acoustic effect of a pothole resonance in the hollow pillar on the Burrard Bridge in False Creek, Jordan's historicization of First Nation settlements and their colonisation resound through to present day urban configurations. These extend into surprising encounters with bystanders as he considers how to bring the acoustic past into the present and how to represent "soundscapes of dispossession."

Far from the urban rattle, Carmen Braden's work in the sub-Arctic on *cryophonics* (ice sounds) is timely research into the effects of climate change on northern landscapes. Braden's article, "Cryophonics: Re-Performing the Ice Songs of the Canadian Sub-Arctic," highlights the intensity of ice formation and transformation through field recordings from which she then creates musical compositions and, in concert with Powell and Jordan, queries the lived listening experience in terms of research. One itera-

tion is the integrity with which the sound of ice “embodies a spiritual bridge between living and elemental forces” and informs both her research and artistic practice. Moving between the lived experience of the soundscape and theorising listening as a living state of being expressive in time-space, Andrea Dancer’s “Listening as Reciprocity: Heidegger’s Appropriation in Being-Time” considers what might constitute a listening phenomenology. Drawing from Heidegger’s last lectures that focus on the experience of time in the presence of Being, Dancer carefully moves arguments away from litanies or occurrences of sounds, aspects of methodology, toward listener-in-sound relationships in fourth dimensional time as an experience of presence. This migration from quantification toward lived paradigms is a thread common to all the articles in this symposium. Likewise, the theoretical prose and accompanying poems are expressions and written iterations of multi-dimensionality as well as part of Dancer’s research process coming to know ecologies of sound as inquiries into listener experience.

Endeavours of research, artistic works, theoretical musings, and conversations on paper about acoustic ecology culminate in the face-to-face encounters of practitioners at festivals and conferences. This is where the passion and intensity of conversations spoken and experienced redefine participants’ listening and thinking within the field of acoustic ecology. They are unforgettable – shaping practices and methodologies in profoundly lived ways. Thus, the *Sound in the Land* conference-festival (University of Waterloo, Ontario) represents a major gathering in Canadian acoustic ecology. As Artistic Director and Coordinator Carol Ann Weaver explains in her report, “Sound in the Land – Music and the Environment: A Festival Celebrating the Earth,” the conference-festival’s aim was to explore “the environment and our relation to it, both sonically/musically and ethically.” With three continents represented and broadly interdisciplinary in scope, a wide range of approaches, genres, and topics celebrate multiplicity of practices as well as practitioners – from keynote speakers R. Murray Schafer’s direct involvement in event activities to Gus Mills’ presentation on the natural sounds from the Kalahari Desert to WFAE and CASE member presentations to composers, researchers, graduate students, musicians and choristers. Like the many conferences that acoustic ecologists and other sound-based colleagues experience world-wide, their impact remains in circulation – like chinook winds that warm Canadian winters on both sides of the Rockies or North African sirocco that blows across the Mediterranean into

Europe, like climates in flux, these intellectual winds and currents retrace continents of knowledge and give pause to methodologies intent on outcomes through the insistent curiosity of the lived experiences that discern as well as redefine human and planetary existence in these times.

Still, insistent curiosities earmark discovery through outcomes, and in this issue new Canadian sound works are also reviewed. In recognition of Barry Truax’s retirement from a 45 year career teaching in the School of Communication at Simon Fraser University (SFU), Tyler Kinnear’s review of Truax’s new CD, *The Elements and Beyond: Soundscape & Electroacoustic Works*, thoughtfully positions this work among earlier works and considers its bearing as an electroacoustic composition and as an expression of acoustic ecology. This issue also features a review of Jennifer Schine’s award-winning short film, *Listening to a Sense of Place*, and radio documentary, *The End of the Line*. Based on her Masters research (supervised by Barry Truax at SFU), the pieces comprise soundscape research into the remote community of Echo Bay, British Columbia, and ethnographic exchanges (interviews and caught conversations) with long-time pioneer, Billy Proctor. Giorgio Magnanensi’s review considers Schine’s works as a disciplinary-genre nexus as well as engagement, the magnitude of which furthers cultures of listening.

As acoustic ecology honors and redefines lineages, iterations through discourse, gatherings, thinking, research, and artistic works continue to vitalise ways of knowing and being impactful toward all planetary existence, toward collective local and global sustainability. These, like unpredictable weather and capricious soundscapes, are sources of concern and wonder bound up with unanticipated mutability. Integral to it all is the art and science of reciprocal listening, the basis for attending to emergent and existing conversations – this symposium’s inspiration and calling. Thus, *Canacoustica* does not claim definitive representation of Canadian acoustic ecology – simply voices within earshot who are dedicated to CASE in its current form. In this way, we enter existent conversations seeking further engagement with the urgency and potency of sound ecology communities worldwide.

WORDS BY ANDREA DANCER on behalf of the *Canacoustica* Editorial Committee:

Andrea Dancer, CASE Chair
Eric Powell, CASE Vice-Chair
Randolph Jordan, CASE Blog Editor

Report from the Editor

In this issue of *Soundscape*, WFAE’s Editorial Committee welcomes a special symposium led by Dr. Andrea Dancer, chair of the Canadian Association of Sound Ecology (CASE), with assistance from Eric Powell (CASE Vice-Chair) and Dr. Randolph Jordan (CASE Blog Editor). They have brought together an interesting mix of talented scholars and artists who speak on behalf of Canada’s environmental acoustics, represented through natural and music composition. Perhaps, the most visible and audible representation of this is in the events surrounding ‘Sound in the Land – Music and Environment: A Festival Celebrating the Earth,’ organized by Dr. Carol Ann Weaver, CASE Secretary.

This symposium *Canacoustica: Canadian Perspectives on Environment and Sound* is relevant particularly when one realizes WFAE’s

legacy began in Canada. With R. Murray Schafer at the helm, *The Vancouver Soundscape* (1973) and then later in 1996 *Soundscape Vancouver* were produced as evidence of a changing and threatened environment. Both remain essential listening experiences, and as archival works, that serve as one of many Canadian aural histories. One hears an emergent voice, rich with harbour ambience, horns and whistles, “music of various city quarters” (Barry Truax’s remix) and a celebratory “New Year’s Eve in the Harbour” (Hildegard Westerkamp), framed as soundmarks, signals, and narrative elements in juxtaposition to unframed captures. All this is said to point out that Dr. Dancer’s symposium asks us to consider the state of *Canacoustics* – Canadian acoustic ecology. We do so in this issue nearly 20 years after the 1996 recordings, and the story continues

Report from the Editor *(continued)*

through words and images expressed as research, commentary, and reviews. So adjust your imaginary headphones, and hear via your mind's ear, the land as a grand acoustic journey. Come along on this literary soundwalk, across the vastness of this nation. This symposium reaches beyond Vancouver to the larger regions; expansive and diverse as they are, commonalities exist among these writings and their authors as well as a deep concern for Canada's environmental future. Again, the voices heard in this issue only represent a fraction of Canadian acoustic research and art. Let this be a reminder to listen deeply to the land that immerses you because there are many stories to be told, and many more to come.

World Listening Day (July 18th, Schafer's birthday) was inspired by his World Soundscape Project founded in the late 1960s as an

international movement. Today, that vision is applauded globally. In this issue, we celebrate the Canadian Association of Sound Ecology (CASE), formed in 1996, and all those who have been impacted by its national legacy of scholars and artists, especially those who preceded its establishment such as Barry Truax, Hildegard Westerkamp and the late Howard Broomfield. The issue concludes with a tribute to Peter Grant to be remembered for his WFAE contributions and his devotion to his family and friends.

Thank you, Canada! Thank you to Dr. Andrea Dancer and CASE contributors.

—Phylis Johnson
Editor, *Soundscape*

Report from the WFAE President

This issue of *Soundscape: The Journal of Acoustic Ecology* marks an achievement for the WFAE's Canadian affiliate. Following several years of leadership transition, the Canadian Association for Sound Ecology/ Association canadienne pour l'écologie sonore (CASE) has established a new cohort, serving both as the "Canacoustic Editorial Committee" and the organization's leadership.

Notable among WFAE activities in 2014 are two WFAE-endorsed conferences, *Sound in the Land* and *Invisible Places | Sounding Cities*. A third conference took place in mid-October, Listenⁿ at Arizona State University, where I was invited to speak about the WFAE and listening. For brevity's sake I will describe the two WFAE-endorsed conferences.

The *Sound in the Land* festival and conference on music and the environment, took place at Conrad Grebel University College, Waterloo University, Ontario, Canada. The conference sought new perspectives on Mennonites, and included a culturally diverse participation of First Nations people, scholars, composers, poets, authors, scientists, theologians, teachers, and students.

From the Biological Sciences, keynote speaker Gus Mills fascinated us with sounds, images, and information from his life-long study of large carnivores of the cat family in South Africa. His wife, Margie Mills, presented her experiences – wonderful and at times tragic – of fieldwork with her husband, of child rearing, of loss, and of helping local people and refugees around Kruger National Park. With his wife Eleanor James, Canadian composer and *World Soundscape Project* founder R. Murray Schafer told us about interspecies communications in sound, and spontaneously engaged us in songs with participants of Schafer's ongoing *Wolf Project*. Professor Carol Ann Weaver organized the conference, the third in a series starting in 2004. Her energy and enthusiasm seemed endless. Eight hours after the conference concluded Carol celebrated her retirement from 29 years of teaching at Conrad Grebel. I was deeply gratified that Carol has joined the CASE executive leadership, serving now as the Secretary. Her article for this issue of *Soundscape* provides a full report.

The *Invisible Places | Sounding Cities* conference provided a fruitful discussion on starting a new Portuguese affiliate of the WFAE. I was invited to help support this discussion and address the conference on behalf of the WFAE. World Listening Day 2014 provided a backdrop for its opening day, with the citywide and transformative

Jardins Efémeros arts festival underway through that weekend. Support from the city of Viseu and the Escola Superior de Educação de Viseu was generous and essential. Keynote speeches by Jean-Paul Thibaud, Brandon Labelle, and Salome Voegelin explored an integrated, holistic approach to understanding and resolving current and future concerns in urban planning, architecture, and sound as a public art form. Full proceedings are now available on the *Invisible Places* website.

In addition to lending its endorsement for conferences, the WFAE endorsed media projects such as Patrick Shen's film, *In Pursuit of Silence*.

Regarding executive changes on the WFAE Board: Following 19 years of dedicated service WFAE Secretary Gary Ferrington was replaced by Christopher DeLaurenti, himself a frequent contributor to this journal with a significant career as a composer. Gary continues as WFAE webmaster and coordinator of *Soundscape Explorations*, a weblog directory of short videos related to the field of acoustic ecology. We thank Co-Vice President Meri Kytö for her two years of service, including her editorial work with Gary on the online *WFAE News Quarterly*. I also welcome Jon Pluskota as Editor of the online *WFAE News Quarterly*, replacing Gary in that former role.

I briefly note the passing of two people who made significant contributions to our field and the WFAE. Steven M. Miller was a founding member of the American Society for Acoustic Ecology who wrote and edited many important and informative articles, including *Soundscape*. Peter Grant was a founding member of the WFAE in Vancouver, British Columbia. A tribute to Peter is included in this issue.

The annual World Listening Day happens on July 18th. Participation in this event helps the WFAE promote open sharing of knowledge between disciplines, individuals, and institutions; connecting people with each other, empowering them to design a meaningful and healthy environment.

I hope you find this issue provides new insight on the uniqueness of the *Canacoustic* ethos and the significance that CASE activities add to the international perspective of acoustic ecology.

—Eric Leonardson
President, WFAE Board

Listening as Reciprocity: Heidegger's Appropriation in Being-Time

Being and time determine each other reciprocally... (Heidegger 1972, 3)

Article & Photos by Dr. Andrea Dancer

A proposition

How does the soundscape bring awareness to states of being and senses of time? Heidegger's last lectures, *Identity and Difference* (1969) and *On Time and Being* (1972), advocate an end of philosophy so that the experience of Being is foregrounded rather than further abstracted. These treatises serve as a turn away from the metaphysics of Being, of linear conceptions of time-space toward a fourth dimension grounded profoundly in an experience of relationality, the unity of past, present and future in the constancy of approach. The always-already movement of insistent approach instantiates awareness of Being through reciprocal *Appropriation* (a key term) of time by Being and Being by time. This is a phenomenological turn that opens radical consideration of how sound works to position the listener in myriad acoustic fields diverging and converging, the soundscape vivified, where fierce reciprocity gifts awareness of self and world in profoundly experiential ways.



Listening Crow, Crescent Beach, B.C., 2015

In classic phenomenological terms, time-space is constituted through perception as the body moves through it, as a means of determining Being both in linear (Husserl et al 1997; Husserl 1999; Merleau-Ponty and O'Neill 1974) and contested conceptions (Barbaras 2004, 2006; Casey 1996; Elden 2001; Heidegger 1969, 1971). It follows that awareness based in reciprocity of self in the soundscape renders the listening environment as porous and responsive. Thus, time-space holds the potential to constitute itself differently.

The implication of this are profound in that ideas of what constitutes other-than-human sentience, the integrity of ecosystems, and time as nested in presence demands that humans can no longer conceive

Fish Bones in the Midden¹

Empty is to space as silence is to sound.
not empty, not silent.

In silence, the body listens to itself
extensively. In emptiness, spaces
fill with oneself emptied.

In the house falling derelict
to long lost native land,

I make a clay cup clatter,
while assonance lingers
under broken floor boards,
vacant window sills,
ruinations of a dark frame,
sink holes of conversation.

Whorling loosestrife blow
like the locks of long dead longing.

Winds bare
breath-taking.
to make the silences speak.

Along the shoreline,
the midden keens
fish bones with every wake
to wash time out of existence.

Listen as wide-eyed,
night fishers
fish among themselves.

I cycle through last winter's long grass.
I cycle through dusk into night to beat
back the dark,
I cycle through the shadows,

the old native man and his son,
long time gone
come to light
the light house lamp.



Last occupied house (1970's) and beach settlement site (5,000 years), Tsartlip First Nation Reserve, Helen's Point Beach, Salish Sea, Mayne Island, B.C.

themselves as separate from their immediate surroundings. These are premises from which an ecology of acoustics emerge – based in the listener encounter with the vital flux of sound and toward an acute awareness of sound as profoundly relational. Soundwalking, field recording, sound and radio art, electroacoustic and mediated sound works, a poetics of sound – all hold the capacity to radicalise states of listening-being toward these ecologies of sound based in the listening experience.

Appropriating lineages

Classical phenomenology is a child of the Enlightenment and, as Heidegger repeatedly points out in his canon, the explained world still tethers to that trajectory. In his last lecture, *On Time and Being* (1972), Heidegger is clearly catechizing and reworking the concepts he put forth in his formative work, *Being and Time* (1962). In so doing, he re-examines the history of the idea of Being from its beginning in Aristotle through to his own work in phenomenological-hermeneutical lineages such as Husserl's concept of consciousness as intentionality where, as Heidegger points out, "a spatial being can 'appear' only in a certain orientation, which necessarily pre-delineates a system of possible new orientations" (1972, 73). Within a visually-based system of directionality distinct from acoustic-based interactive ways of knowing and being, the listener attaches linear orientations, but this can be reconceptualised through the listener energetically co-creating time-space and assigning visual markers to it.

In these final works, Heidegger rattles the Kantian framework: the linear conception of past, present, future that makes awareness, a core value of being human, possible. Heidegger's rethinking of this awareness as presence begins to pry open the possibility of different (non-philosophically abstracted and experientially-based) states of being, such as listener-to-sound relationships. This marks Heidegger's acknowledgment that times have changed, so to speak. Conceptions of time-space as linear and framed have changed, for example in the field of human geography and urban studies where the work of Henri Lefebvre redefined space as produced through human activity attached to the forces of production (Elden 2004; Lefebvre 1961, 1991a, 1991b, 1992, 2005; Shields 1999) and in the notion of the *flâneur* meandering through a bricolage of space as described by Michel De Certeau (1984, 1986, 1988). This signals a shift toward ways of apprehending time-space as non-linear, just as Heidegger seeks to redefine time in the experience of Being. Further, as Heidegger anticipates in these later works, conceptions of time and Being are radicalised through the technologisation

of human and planetary existence – important considerations for soundscape work that takes lived experience into the electro-acoustic realm.

As Heidegger begins to take apart the meaning ascribed to the influential concepts defined in his work in *Being and Time* (1962), he is thinking through to the end of philosophy. This, he claims, is a call to thinking as an activated awareness different in approach from concepts of Being tied to hermeneutical and phenomenological lineages (1972, 55–73). With a departure from the history of philosophy, Heidegger takes on the task of decontextualizing these terms as epochal changes in meaning. Joan Staumbaugh, in the introduction to Heidegger's last lecture's English translation, explains this pivot in Heidegger's thinking that led to *On Time and Being* (1972):

According to Heidegger, Being has been thought in traditional philosophy exclusively as a kind of Presence. The manner of presence changes throughout the history of philosophy, not in the dialectical, calculable fashion of Hegel, but in sudden epochal transformation which cannot be plotted out in advance. (Heidegger 1972, ix)

In this spirit, the phenomenological consideration of sound must untether from classical phenomenology and ocular-centrism in creative and drastic ways. Heidegger's last lecture offers and opens to such frontieristic misadventures, misreadings, mistakings, and misleadings in order to claim an acoustic field aligned with, while distancing from, visual-meta-philosophical centric descriptions traditionally found in phenomenological approaches.

Misdirected propriety

The acoustic experience is perceived as another aspect of the sensate inhabited world, but for the most part, lived acoustic experience is habituated, taken for granted as organization around speech and as the accoutrement of things in motion, as direction and location. Sound is ideated primarily within linearity and ocular-centrism. For this reason, theorizing sound from within classical phenomenology is problematic. As foundational to contemporary theory, it is an important lineage to embrace in order to depart from it.

The experience of sound resists method, litanies of occurrences, artifacts, descriptions that compromise the complexities of the listener experience or their acoustic being-ness, resulting in insurmountable phenomenological reduction. Don Ihde's 1976 survey of auditory phenomena, contextualized as a method for listening in music and human experience, *Listening and Voice: Phenomenologies of Sound* (2007) admits:

I can focus on my listening and thus make the auditory dimension stand out, but it does so only relatively. I cannot isolate it from its situation, its embedment, its 'background' of global experience. In this sense a 'pure' auditory experience of phenomenology is impossible, but, as a focal dimension of global experience, a concentrated concern with listening is possible. (Ihde 2007, 44)

This supports ecologies of sound based in the listener experience. Linear concepts of time and visual ways of knowing, for example, skew the basic premise of how one experiences the world as sound. Investigations of reflective listener-to-sound experiences offer possibility of coming to know oneself in sound, sound in oneself, in excess of habituation.

Propinquity

Appropriation, as an extension of a specific etymology that Heidegger acknowledges (Dancer 2014, 46-52; Heidegger 1972, 14, 22), means simply to take something as one's own, to own it completely with awareness while acknowledging that it is also a forgetting of other iterations of ownership. *Appropriation* as presence arrives as a gift, a sending forward and holding back that, according to Heidegger, differs from past notions of the present, from linear time and Being as sequential occurrences (an event) of a *now* time. In *On Time and Being*, Heidegger states that "true time is four dimensional" (1972, 15). Heidegger summarizes that in thinking "Being itself and follow[ing] what is its own, Being proves to be destiny's gift of presence, the gift granted by the giving of time" (1972, 22). How is the listener gifted presence through sound?

First, consider that Heidegger is pointing to the question of the horizon of time and how Being manifests in time. He is not, in this last lecture, explaining the role of the human, as such, but rather the relationality of Being and time in being-ness. This relation he calls an *Appropriation*, tossing aside the language of an *event of Appropriation*, which is problematic in that it brings notions of sequential time back into the picture (1972, 20). For this reason, calling sound an *event* or an *occurrence* is not appropriate for this reframing of a phenomenology of sound. Heidegger further explains this dynamic:

According to the meaning of giving which is to be thought this way, Being – that which It gives – is what is sent. Each of its transformations remains destined in this manner...what is sent forth in destining, not by an indeterminably thought up occurrence. (Heidegger 1972, 8–9)

The listener may think of sound as an event or occurrence as part of their conceptualization of sound based in quantitative ways of knowing, visual-based ways of perceiving, the age-old predominance of the measure, but sound exceeds these limitations as sound is constantly in flux and dynamic. It has a trajectory that is non-sequential, remaining consistently mutable as it reaches and extends through myriad encounters with other matter and forces. These encounters can be understood as nested, each retaining and sending forth of themselves one within another.

When sound reaches the listener, the listener as a center point perceives themselves as the apex of the sound. They then concern themselves within the sounds' directionality, quality (tone, pitch, loudness), possible locator meanings and other such requisite information. The listener does not generally consider that they are one of myriad acoustic encounters that determine the listening field. For the listener, the sound approaches, arrives, and moves on in relationship to themselves and along a pathway imbedded in their conception of a past, present, and future. There is the direction of approach that is of interest, the moment perceived as an occurrence of arrival and as the fulcrum, and when it moves on, its passing is soon relegated to the past and elsewhere. However, the listener as

a being – habituated to concepts or seeking alternate awareness – is always-already defined in time-space by the encounter.

In this way, sound can be thought aptly within Heidegger's experimental rethink of Being as time, time as Being, appropriated reciprocally. To consider this, in concert with Heidegger, the question arises as to "what is peculiar to Appropriation" (1972, 22) and, in concert with this thinking of sound, what is peculiar to sound as the listener experiences it as a being in time. Heidegger, in one turn, says that "the sending in the destiny of Being has been characterized as giving in which the sending source keeps itself back and, thus, withdraws from concealment" (1972, 25). This withdrawing from concealment, the opening of sound in its way of being sound, is an important consideration in understanding the potential for sound-to-listener encounters as time appropriated by Being in reciprocity.

As sound emanates from its source, it gives of itself to each thing it encounters in that it changes with each encounter and the encounter changes the thing itself. The changes may be in force fields or cause changes in chemistry or may change perceptions and movements, but the sound gifts itself to what it encounters as it loses part of its duration in the encounter and also is changed, amplified, augmented or denuded in some way. This is how the sending source both retains what is quintessential to sound, what it is in how it interacts with its environment, and how it also withdraws from concealment as it emanates outward. Sound opens itself to what it is in each exchange it encounters as it travels. The exchange extends sound in time as it reaches out throughout its emanations, trajectories and diversions.

This constitutes a possible rethink of how sound exists in time, as interrelations between things and forces toward a complexity of time-space as perceived by beings. Each encounter gifts presence in the way sound lets itself be known as sound – through openings that hold the potential to reveal the nature of what sound is and what it encounters within the soundscape – locations, substance, movements, for example, all profoundly interrelated.

Sound withdraws from concealment by making itself and what it encounters known through reciprocity. These reciprocal presencings are what Being appropriates of time and time appropriates of Being – a relationship of extending and revealing that the listener can, if sensitized, apprehend in listening to sounds in awareness of themselves as integral to the soundscape. In this way, multiple dimension in acoustic listening as Being emerge.

How is time nested in time, space in space? Heidegger points to this contradistinction from habituated ways of experiencing time as linear and sequential as, instead, a degree of absence. As he explains:

In true time and its time-space, the giving of what has been, that is, of what is no longer present, the denial of the present manifested itself. In the giving of the future, that is, of what is not yet present, the withholding of the present manifested itself. Denial and withholding exhibit the same trait as self-withholding in sending: namely, self withdrawal. (Heidegger 1972, 22)

The listener attends to a sound approaching, perhaps a car crossing the Canadian prairie on a frozen winter day or a deer moving through dense foliage in a forest or a motorcycle that drives up a twisting walled rampart, revs its engine and roars away. Each is moving in time-space and, for the time of listening, the listener hovers between themselves and the sound. The *where* of where it is coming from or going to is important for the time in which it shapes the soundscape and brings associations to the listener. In the approach and moving away, in associations and memories, there is a forgetting of presence, a degree of absence. Listeners, perceiving movement as linear in time-space, delight in this phenomenon.

What takes Being-presence is how the listener is caught in the continual exchange of what is approaching and what is passing as it approaches repeatedly and passes repeatedly throughout the



Soundwalkers, University of British Columbia Soundwalk, 2007

movement. In this way, sound constantly denies the present manifest in the future of continual approach and the past of continual passing. This, too, is a constant sound-withholding-opening that listeners find intriguing, that brings presence to the fore as the being-self must withdraw in order to embrace the fluidity and vivification of the present as presence. The approach and withdrawal are what gives the impression of the where-ness of time and time-space. From Heidegger's perspective of *Appropriation* of time-Being, the denial of past, present and future is "the realm of its threefold extending determined by the nearing nearness [which] is the prespatial region which first gives any possible 'where,'" (1972, 16). In this prespatial plane, where-ness hovers in heightened awareness.

In this way, a different understanding emerges where the experience of sound shapes the soundscape and the listener experiences themselves as manifest in Heidegger's fourfold time that is and yet exceeds the past, present, future into the opening of presence. Thus, absence that is also piercing presence. Consider Heidegger's explication of absence as:

what has-been which, by refusing the present, lets that become present which is no longer present; and the coming toward us of what is to come which, by withholding the coming toward us of what is to come which, by withholding the present, lets that be present which is not yet present. (17)

The *withholding the present, [which] lets that be present which is not present* is a different awareness from habituated and conceptual ways of Being. It instructs on the nature of sound-to-listener states. It also opens the experience of sound as sound possible when listening to a soundscape composition or high-fidelity recordings of sounds through media – it invites schizophrenia and a kind of time-space travel.

Consider the manner of listening, whether live or mediated, where sound is traveling and in that movement defines itself, but until that moment, sounds are in a different defining moment in space that have a trajectory, but from the perspective of the listener, these remain momentarily undefined, ambiguous, radical and on the edge of becoming. Unlike linear conceptions of sound as movement through time, acoustic time and time-space are continually hovering before falling into convergence. That is why one is called to listen deeply, acutely, with all the body and perceptive abilities – and most of all without anticipation – to catch this refined aspect of how sound shapes the soundscape and how being-ness is shaped inside of it. So much presence depends on listening acumen.

This is also how silence, a mode of absence as presence in

Walking in Sound²

In the molten night
 cicadas rub as cats wail,
 far a lone tram skims tracks
 before dawn, the density of
 the exhaust
 fans that never sleep,
 birds that offset morning
 train's thunder
 overhead, beneath
 whispers and sleeves rub a side,
 let them pass,
 the early ones.

On the way into the day
 sing *kachne-bush, kachne-bush*
kachne-bush, ride
 fine-tuned and robust
 like a Harley
 through the old gate
 where wind tosses poplars
 and birds ride high and wild

The day is on,
 tossing time like marbles
 against stone
 cobbles
 each glass orb
 reflecting the world,
 rolling this way and that,
 erratic-intent
 crisscrossing
 the path of the squat heart
 while sirens scorch the air.

There is time this day for
 what sounds in the air, for

tracing the citadel to the strand
 through whitewash rush-hours,
 let the insistent
 trains shake the trestle,
 let the river quiver
 and swans hiss.

Misa (nthropy) answers to know one
 not even the static and random
 airwaves, stations changing
 through all the broad
 casts of lives, random order,
 endless banter barrage.

Ferry me into a lullaby, under
 across all around, sooth me,
 with a tune, improvised yet ever-green,
 through the worldly grind into the
 wake full ness.

(o to listen and be)

relationship to sound, opens and extends sounds as receptacles of time, time-space and Being. Not at all a true absence, silence is nevertheless a self-withdrawal of sound that brings heightened listening awareness. In silence, the listener becomes aware of themselves in their sound-making bodies, in the space they

are inhabiting, in the nearing nearness of things close and far, in the minutia of the approach and withdrawal, in presence of Being and in time. In fourth dimensional listening, sound is better articulated and, in that sense, proffers a unity, a sense of duration that speaks of lasting, of certainty, of timeliness inside of timelessness. Heidegger states that “presence means: the constant abiding that approaches man, reaches him, is extended to him” (1972, 12). So too, the listener abides in silence, in the refined sense of absence of what is in the nearness approaching, flickering. Heidegger asserts that even this abiding must not be taken for granted for “not every presencing is necessarily the present. A curious matter” (1972, 13). This curiousness holds the listener in presence unique to sound. “What remains to be said? Only this: Appropriation appropriates” (Heidegger 1972, 24). So too, it can be said that sounds sound and crave that listeners listen.

About the Author

ANDREA DANCER, MFA, PhD, is a writer, soundscape composer and artist as well as arts-based research practitioner and educator. Her works in transdisciplinary forms of expression and research across the field of acoustic ecology, in all its iterations, spans poetry, narrative, radio and sound art, documentary, the art of field recording, and nexuses of visual and sound arts – specifically towards an ecology of sound based in listener-to-soundscape foci. She is the Chair of the CASE. www.andreadancer.wordpress.com

Endnotes

1. In exploring Helen’s Point on Mayne Island in the Salish Sea (Gulf Islands, B.C., Canada), the location where I recorded the audio for the soundscape composition, “Sounds Like Home” (2007), I spent time in the original last standing house, occupied by a Tswwassen First Nation family until late 1970s. The site was continuously inhabited for five thousand years and comprises a midden (garbage repository). “Fish Bones in the Midden” is a reflection on that place as I encountered and documented it in the process of compiling audio recordings.
2. “Walking in sound” is a poetic riff taken from the sequence of field recordings comprising a soundscape composition, “Walking Sound / Zvukovou procházku” (2011) and a public soundwalk that took place in Prague, Czech Republic.

References

- Barbaras, R. 2004. *The Being of the Phenomenon: Merleau-Ponty’s Ontology* [De L’être du Phénomène.]. Bloomington, IN: Indiana University Press.
- Barbaras, R. 2006. *Desire and Distance: Introduction to a Phenomenology of Perception* [Désir et la Distance.]. Stanford, CA: Stanford University Press.
- Casey, E. S. 1996. “How to Get From Space to Place in a Fairly Short Stretch of Time: Phenomenological Prolegomena.” In S. Feld and B. Keith (Eds.), *Senses of Place*. Santa Fe, NM: School of American Research, 13–52.
- Dancer, A. 2010. “Sounds Like Home.” In S. Wadham (Producer) *Living Out Loud*. Toronto, ON.: Canadian Broadcasting Corporation.
- Dancer, A., and M. Kindernay. 2011. “Walking Sound” [Zvukovou procházku]. In M. Rataj (Producer) *PremEdice Radioateliéru Radiocustica*. Prague, Czech Republic: Český Rozhlas Vltava.
- Dancer, A. 2014. “Profound Listening: Poetics, Living Inquiry, Arts-based Practice and Being-Presence in Soundwalk-|Soundscape Composition.” PhD Dissertation. Cross-faculty Inquiry in Education. Vancouver, BC: University of British Columbia. <http://hdl.handle.net/2429/50833>
- De Certeau, M. 1984. *The Practice of Everyday Life*. Berkley and Los Angeles, CA: University of California.
- De Certeau, M. 1986. *Heterologies: Discourses on the Other*. Minneapolis, MN: University of Minnesota Press.
- De Certeau, M. 1988. *The Writing of History*. New York, NY: Columbia University Press.
- Elden, S. 2001. “The Place of Geometry: Heidegger’s Mathematical Excursus on Aristotle.” *The Heythrop Journal*, 42(3), 311–328.
- Elden, S. 2004. *Understanding Henri Lefebvre: Theory and the Possible*. New York, NY: Continuum.
- Heidegger, M. 1962. In E. Robinson (Ed.), *Being and Time*. New York, NY: Harper and Row.
- Heidegger, M. 1969. *Identity and Difference* (J. Staumbaugh Trans.). New York, NY: Harper and Row.
- Heidegger, M. 1971. “Building, Dwelling, Thinking.” *Poetry, Language, Thought*. New York, NY: Harper.
- Heidegger, M. 1972. *On Time and Being* (J. Staumbaugh Trans.). Chicago, IL: University of Chicago Press.
- Heidegger, M. 2009. *Basic Concepts of Aristotelian Philosophy* [Grundbegriffe der aristotelischen Philosophie.]. Bloomington, IN: Indiana University Press.
- Heidegger, M., and J. Staumbaugh. 1996. *Being and Time: A Translation of Sein und Zeit* [Sein und Zeit.]. Albany, NY: State University of New York Press.
- Hubbard, P., R. Kitchin, and G. Valentine. 2004. *Key Thinkers on Space and Place*. London, UK: Thousand Oaks: Sage Publications.
- Husserl, E., T. Sheehan, and R. E. Palmer. 1997. *Psychological and Transcendental Phenomenology and the Confrontation with Heidegger (1927-1931): The Encyclopaedia Britannica Article, the Amsterdam Lectures “Phenomenology and Anthropology,” and Husserl’s Marginal Notes in “Being and Time,” and Kant and the Problem of Metaphysics*. Dordrecht: Kluwer Academic Publishers.
- Husserl, E. 1999. *The Idea of Phenomenology* [Idee der Phänomenologie.]. Dordrecht; Boston: Kluwer Academic.
- Ihde, D. 2007. *Listening and Voice: Phenomenologies of Sound*. Albany, NY: SUNY Press.
- Lefebvre, H. 1961. *Critique of Everyday Life, Volume II: Foundations for a Sociology of the Everyday*. London, UK: Verso.
- Lefebvre, H. 1991a. *Critique of Everyday Life, Volume I: Introduction*. London, New York: Verso.
- Lefebvre, H. 1991b. *The Production of Space*. Malden, MA: Blackwell Publishing.
- Lefebvre, H. 2005. In G. Moore (Ed.), *Rhythmanalysis: Space, Time and Everyday Life*. London, UK: Continuum.
- Merleau-Ponty, M., and J. O’Neill. 1974. *Phenomenology, Language and Sociology: Selected Essays of Maurice Merleau Ponty*. London, UK: Heinemann Educational.
- Shields, R. 1999. Review: “Harmony in Thirds: Chora for Lefebvre.” *Annals of the Association of American Geographers*, 89 (2), 340–342.
- Smith, F. J. 1967. “Insights Leading to a Phenomenology of Sound.” *The Southern Journal of Philosophy*, 5(3), 187–199.
- Soja, E. W. 1999. “Keeping Space Open.” *Annals of the Association of American Geographers*, 89(2), 348–353.

Toward the Sound of Place

By Eric Powell

Introduction: The Trouble with Soundmaps

There is an inherent problem with the conception and construction of contemporary sound-based mappings. These documents are most often presented as two-dimensional graphic representations of space with icons or arrows denoting the site from which each sonic fragment was collected. What these maps fail to capture is the fluid and interconnected nature of sounds-in-space over time – what I prefer to call sounds-*through*-space. In order for listeners to communicate their experience, and for scholars to analyze compiled data, it is necessary to consider new paradigms in map-making while reexamining the process of mapping itself (Mitchell 2008, Crampton and Krygier 2006, Kitchin 2012). What we understand to be an accurate or “true” representation of physical space as expressed through paper or digitally-presented graphic maps only present the viewer with the information that established practices of cartography deem important. My research explores the practice of aural map-making with an emphasis on defining the relationship among sound, mapping, and mobility. My goal is to create a framework for the development of new forms of aural cartography that incorporate the physical, embodied experience of moving through sound-in-space – not just as a listener, but as a participant directly engaged in the act of listening and exploring. The aim of this article is to demonstrate one alternative cartographic approach to documenting large-scale sounding environments as interconnected wholes of myriad arenas all operating through fluid relationships.

Defining Space(s)

Throughout *The Fate of Place*, Edward S. Casey dismisses the idea of space as containing meaning, pointing to the homogeneity of space – something existing either as a void or vessel, but unable to have meaning attributed to it. His goal is to bring the concept of place to the forefront of philosophical discourse, uncovering what he refers to as a “difference-in-place” – something outside the uniformity of urban geographies and Western monoculture. He writes: “Place brings with it the very elements sheared off by the planiformity of site: identity, character, nuance, history” (1997, xiii). Casey identifies the ways in which place commonly came to be known as a mere modification of space – something he feels should be more correctly referred to as “site” (1997, x). He argues against this reductionist view of place, stating: “Once space is dissociated from the particular bodies that occupy it, it is bound to be emptied of the peculiarities and properties that these same bodies (beginning with their outer surfaces) lend to the places they inhabit – or that they take away from places by internalization or reflection” (1997, 197). If space is a void, there is no possibility for place. He goes on to argue that it is impossible for a site to be situated within space. This is the requirement of place: “Space in the modernist conception ends by failing to locate things or events other than that of pinpointing positions on a planiform geometric or cartographic grid. Place, on

the other hand, situates, and it does so richly and diversely” (1997, 201). While it may seem heavy-handed, this conception of place as a situating device is particularly useful in sound studies. There are interesting links between ear cleaning practices associated with acoustic ecology – often described as an ‘uncovering,’ ‘opening,’ or ‘search’ for sound (Schafer 1977), and the search for place exhibited by Casey: “To uncover the hidden history of place is to find a way back into the place-world – a way to savor the renaissance of place even in the most recalcitrant terrain” (1997, xv).

In contrast, Doreen Massey’s *For Space*, troubles the distinction between place as a meaningful, lived, and everyday venue, versus space as an outside, abstract, or meaningless “otherness” (2005, 6). She contends that even in this context, space still has meaning: “[S]pace is equally lively and equally challenging, and that far from it being dead and fixed, the very enormity of its challenges has meant that the strategies for taming it have been many, varied, and persistent” (2005, 14). Now, it is important to recognize that in this text Massey is not specifically arguing for a separation between space and place. She situates place as existing outside the defined (or definable) realm of this conversation. Place should exist in conjunction with space, but first, space needs to be understood as the viable vessel of meaningful information and experience that seems to only be attributed to place.

The important thread running through both Massey and Casey’s work is the understanding that space inherently contains meaning – regardless of whether or not that meaning is the multiplicity of timelines and histories (Massey 2005), or the place-world of meaning contained within the homogeneous void (Casey 1997). However, there is still the issue of how an individual navigates these associative relations to space, regardless of how they may be arranged.

Massey writes, “If no space/place is a coherent seamless authenticity then one issue which is raised is the question of its internal negotiation. And if identities, both specifically spatial and otherwise, are indeed constructed relationally, then that poses the question of the geographies of those relations of construction” (2005, 10). Even though Massey’s critique is primarily spatio-temporal, while Casey attempts to avoid the void – this questioning of the structures that make up the meaning within space can be mobilized into sound studies using Barry Blesser’s concept of the “eventscape” (Blesser 2007).¹ By using this term, Blesser opens up the politicized and rather narrow concept of the “soundscape” (Schafer 1977) or even the somewhat broader “aural environment” (Truax 2001). In my interpretation, Blesser uses this term to describe the interaction of all the sonic events within a particular area and how they interact within space over time, providing an excellent application of Massey’s conception of space containing multiple histories and trajectories. A sound, by nature, exists as a remembrance of a thing past. Echo and reverberation are merely additional inscriptions from

a sound event that was. To extend the role of the sound object into Casey's notion of place, a sound event is an indicator of a unique intersection of space, time, and sound. The way a particular sound is perceived is completely dependent on how, where and by whom the sound is heard. However, it is possible if each iteration of a sound is remembered, a cumulative catalog of timbre, reverberation, and duration can be stored, allowing the listener to effectively situate him or herself using sound.

Aesthetics, Maps and Meaning-Making

A map's inability to truly represent space is not a striking revelation. Many postmodern theorists and critical cartographers have questioned the idea that a map represents the 'real,' or even *what* a map represents (Crampton and Krygier 2006, Kitchin et al. 2012). The practice of cartography is subject to many of the same cultural assumptions found in the experience of space and place. Peta Mitchell discusses the self-perpetuating power systems within traditional maps in *Cartographic Strategies of Postmodernity*. She writes: "For centuries, [the] map has been given privileged status as having a direct correspondence with the real, in that it objectively and realistically re-presents, on a smaller scale, the territory, the real, the truth" (2008, 17). Moving beyond Mitchell's postmodern critique of this assumption is Massey's idea that maps are representations of space and time captured together (2008, 9). In this line of thinking, a map becomes a singularity – a captured moment-in-time. However, this idea of the mapped singularity brings into tension the separation between subject and object. Kitchin et al. describe this shift from representational cartographic theory to a post-representational, processual understanding of mapping (2012, 480).

How is it possible to expand a fluid form of collective mapping into the aural environment? What forms will a new aural cartography take? There are countless examples of how artists and researchers are approaching the convergent realms of mobilities, sound studies, and cartography, including several recent surveys and critiques of contemporary and interactive soundmapping processes (Waldock 2011, Ouzounian 2014). However, aside from my previous critiques expressed in the introduction, what I am interested in discussing here are the ways in which we can explore the tensions that arise out of trying to create mappings of space using sound.

There are many artists and researchers working with forms of mapping or inscribing meaning on to space through sound: Hildegard Westerkamp's practice of soundwalking, Christina Kubisch's electrical walks and installations, as well as Janet Cardiff's audio walks are three excellent examples of how individuals are using modes of embodied performance and inscription to use listening-based approaches to aural cartography. Strategies for aural cartography must take into account the fact that the way in which we perceive the aural environment is an ongoing negotiation and navigation of multiple interleaved sites and locations, developing experience and meaning over time. John Urry discusses "wayfinding" as a means of "moving around *within* a world, a process of constant engagement and readjustment in relation to the environment – rather than 'map-reading' that is moving across a surface as imagined from above" (2007, 86 his emphasis). This need to be *within* the environment is a key element, tying together Massey's notion of multiple trajectories overlapping within a single space, and the embodied audile technique (Sterne 2003) of the active participant. The next question is, of course, *how* is the participant moving? Through what means are they wayfinding? The easiest way to experience the aural components of the eventscape is through walking. Michel De Certeau explores the act of walking through urban environments in *The Practice of Everyday Life*. For him, walking is a means of inscribing new meanings across the surface of the city (1984, 105). This idea resonates strongly with Massey's notion of the multiple trajectories contained within space, as well as Urry's process of "wayfinding."

An important element to consider when discussing inscription and wayfinding are the ways in which memory works as an inscription device. In her article, *Movement, Memory and the Senses in Soundscape Studies* Jennifer Schine discusses how we begin to create meaningful associations with place through sound through the use of soundwalking as a tool for memory retrieval.

Schine's article responds in a very interesting way to issues raised by Barry Truax in his 2012 article *Sound, Listening and Place: The aesthetic dilemma* where he posits that there is an inherent difficulty in re-presenting the individual experience of place in artistic creation, working towards an understanding of the role of the composer in maintaining one's own connection to the outside world throughout the composition process in order to transmit an emotive understanding of the contextual relationship between place and sound. In my own artistic practice, and in the project I am using as an example of an alternative form of aural cartography, the role of the listener is necessarily embodied. However, contrary to much of the work discussed above, in this particular project, listeners transition from soundwalking to sound-canoeing.

Alternative Cartographic Strategies, and Modes of Inscription

I would like to introduce the use of sound as a mapping device within the aural context in a way that provokes interaction and intervention between physical space and the sounding environment, inscribing meaning in very different ways. To do this, I discuss a multi-year research-creation work based on the composition of a site-specific performance and installation event entitled *Under Living Skies (ULS)*. This piece is based on two central questions: What are the sounds of Saskatchewan? How can the unique aural character of this province be presented to an audience?

In order to answer these questions, I spent the summers of 2010-2012 collecting field recordings, generating a library of impulse responses, as well as scoring and recording site-specific compositions and improvisational interventions across the province of Saskatchewan. Creating a work that both influences and is influenced by environmental sound involves application of both artistic and scientific methods: integrating geologic, topographic, acoustic, and psychoacoustic analysis with elements of acoustic ecology, contemporary music practices, and new media technology. The goal of this work was, and still is, to create musics that interact in a very direct and concrete way with physical spaces: using creative and qualitative methods to examine resonant frequencies of geological formations, to measure natural reverberations and echoes, and finally to create a performance event that responds directly to the unique acoustic character of a specific lake in Northern Saskatchewan. Creating a piece of music that truly resonates within the site, performing music of and for the land.

In 2010, I was commissioned by the Saskatchewan Arts Board to create a piece of music that explored the unique sound environment of the province. This was the first step into my ongoing exploration of sound-based mapping and attempts to capture the sound of place. The final outcome of this commission was a suite of four movements for chamber ensemble and 8-channel tape exploring sonic identity through our aural relationship to four key themes which become the movements within the piece itself: *Resources, Transportation, City, and Country*. This piece used a wide range of field recordings to explore the compositional balance between environmental sounds and instrumental voices.²

More important than the composition itself was the time I was able to spend circumnavigating the province, listening and recording. It was through this commission that I became interested in the idea of trying to create a catalogue of how sound interacted with space in a more quantifiable way – not just the one-time intersection of time, space and event that can be captured through a field recording, but



Photo by Eric Powell, 2012

Fig. 1. Nigel Taylor on location in Swede Lake, SK

by trying to understand all the ways in which the landscape filters and reflects sound events, and how different eco-regions respond to similar acoustic phenomena.

The second installment of the *ULS* project was a period of intensive audio-based mapping research, involving testing a number of theories surrounding the ability to generate a cohesive document that captures the behaviour of sound-through-space. Over the summer of 2011 my team (consisting of 3 researcher associates)³ and I created a library of impulse responses, instrumental interventions, and field recordings from locations across the province, allowing me to perform acoustic analysis of these locations, as well as directly comparing the sound of a canola field to that of the open prairie, or a lake in the Northern forest. The impulse responses collected during this installment provided some of the most useful data with regard to the relationships among sound, different ecosystems, and geological formations.

The 2012 stage of the *ULS* project synthesized findings from the two previous iterations through the development of new compositional approaches, heightened listening practices (with particular attention to the responsiveness of the physical environment to musical stimuli), and an understanding of the sounding character in a small bay off of Swede Lake near Prince Albert SK (see Figure 1).

Over the course of a month, the project team created a series of onsite aural explorations testing the useability of the impulse response data collected in 2011. This period of work was very fruitful. Without too much surprise, while the impulse response data was useful in pointing toward reverberation time and a few resonant frequencies, our ears tended to be better suited toward highlighting and experimenting with the unique timbral characteristics of being situated in a particular place around or on the bay. The exploration of sound-through-space.

The final stage of the *ULS* project is a site-specific performance

and installation event. Originally scheduled for the summer of 2014, this event has been placed on hold until scheduling and funding issues can be resolved. In this event, listeners are invited to enter a completely new aural and physical environment that has been specially developed for this project. This performance presentation combines live instrumental and electronic performances, sound sculpture, and short-range FM transmission to envelop the audience in a unique sound-space constructed around the natural acoustics of a small bay on this tranquil remote lake. Participants are asked to hike around the shore, or to canoe through the bay in order to experience the project. This performative act of movement into and through an alternative/modified space integrates the embodied experience of the listener into an immersive exploration of the relationship between sound and space, using musical performance and electro-acoustic composition to chart paths of listening – modified songlines, perhaps – across the bay and through the woods. Here, sound is not the object being mapped, but rather the stylus with which meaning is being inscribed upon (and with) space.

However, the question still remains: how is this a mapping? The technological and artistic interventions that comprise the *ULS* project collectively form an in-depth examination of the sounding environment of Swede Lake. Ranging from spectrographic analysis of impulse response to performing on-site experiments to determine exactly how and where a trumpet's B-flat would ring the longest to exploring how to use the natural echo of the lake as a type of (very analog) delay/looping system – the *ULS* project has effectively defined many parameters of how sound behaves within this particular location. However, the more important question of documentation and transmissibility still plagues this project. It is difficult to share much of this research as my research team and myself have stored and cataloged much of it through our direct and embodied experience in performing the project's interventions.

Additionally, the recordings that we collected (while interesting to listen to from an aesthetic perspective) do little to help listeners at home decode the complex relationships surrounding what was actually happening on site.

This is the key difficulty in completely defining the *ULS* project as a cartographic strategy (or an attempt at an aural mapping). Audio documents (as can be heard in the 2012 recordings) fail to accurately convey all the elements that go into that particular intersection of time, space and sound. This is where Truax's argument toward the aesthetic intervention of the composer's hand to help create or shape associative meaning with the audio document could easily be raised. Should I have conceived of these recordings as short compositions, rather than audio documents of a particular sounding space – albeit documents of a space that has been modified through the intervention of instruments and technologies that are conventionally associated with an aesthetics (read: composed) art-music experience? It was important to note that the *ULS* project is still framed within media arts, and all three of the completed stages received funding from the Saskatchewan Arts Board.⁴

The *ULS* project is an indicator, a marker of how it is possible to move beyond established practices of soundscape composition, soundwalking, and aural cartography to generate conversation around what other forms soundmapping can take. As I move forward in my research into ways of understanding and sharing associations with sound-through-space, I have transitioned into the creation of objects and interfaces that allow for a similar form of aural exploration to that of the walking (or canoeing) listener, adding frames that resonate with a wide range of audiences, as well as addressing issues of accessibility: physically, artistically, and technologically. In conclusion, I return to some of the ideas I introduced surrounding modes of inscription, and the multiple trajectories of experience that can be contained within a single place. While my project began as an attempt to unearth the aural character of Saskatchewan and gradually morphed into a detailed aural exploration of a single Northern lake, there are countless other sounds and experiences (collective and individual) retained by and embodied in all the residents of the province, whether acoustic ecologists or not. It is my personal goal to try and share as many of those experiences with the larger public as possible through a wide variety of tactics toward acoustic and aural wayfinding.

About the Author

ERIC POWELL is a sound artist and composer who creates site-specific and interactive installations, and performs with live electronics. He is currently working on a PhD at Concordia University in Montreal. Eric is a founding member of the sound art organizations *Electricity is Magic* and *Holophon Audio Arts*, and sits on the board of the Canadian Association for Sound Ecology (CASE). He has recently presented work in Toronto, Prague, Limerick, and Dubai.

Endnotes

1. It is interesting to note that while Blesser himself references this text as the source of this term, "eventscape" does not actually appear in the book. Even as late as 2009, Blesser was using "soundscape" and "eventscape" interchangeably.

2. A stereo recording of the live performance, titled *Under Singing Skies* can be found at: <https://ericpowell.bandcamp.com/album/under-singing-skies>
3. Myself, Charles Fox, Matthew Griffin, William Hales, Nigel Taylor, and Karl Valiaho.
4. I would like to reiterate my continued gratitude to the Saskatchewan Arts Board for their generous support of these projects.

References

- Blesser, B., and L. R. Salter. 2006. *Spaces Speak, Are You Listening*. Cambridge, MA: MIT Press.
- Bull, M. 2007. *Sound Moves: iPod Culture and Urban Experience*. London, UK: Routledge.
- Casey, E. 1997. *The Fate of Place: A Philosophical History*. Berkeley, CA: University of California Press.
- Crampton, J., and J. Krygier. 2006. "An Introduction to Critical Cartography." *ACME: An International E-Journal for Critical Geographies*, 4 (1): 11–33.
- De Certeau, M. 1984. *The Practice of Everyday Life*. Berkeley, CA: University of California Press.
- Kitchin, R., J. Gleeson, and M. Dodge. 2012. "Unfolding Mapping Practices: A New Epistemology for Cartography." *Transactions of the Institute of British Geographers*. doi: 10.1111/j.1475-5661.2012.00540.x
- Massey, D. 2005. *For Space*. London, UK: Sage.
- Mitchell, P. 2008. *Cartographic Strategies of Postmodernity: The Figure of the Map in Theory and Fiction*. New York, NY: Routledge.
- Ouzounian, G. 2014. "Acoustic Mapping: Notes From the Interface." In M. Gandy, and B.J. Nilsen (Eds), *The Acoustic City* (164–173). Berlin, Germany: Jovis.
- Sterne, J. 2003. *The Audible Past: Cultural Origins of Sound Reproduction*. Durham, NC: Duke University Press.
- Schafer, R. M. 1977. *The Tuning of the World*. New York, NY: Knopf.
- Schine, J. nd. "Movement, Memory and the Senses in Soundscape Study." *Sensory Studies*. <http://www.sensorystudies.org/sensorial-investigations/movement-memory-the-senses-in-soundscape-studies/>
- Truax, B. 2001. *Acoustic Communication 2nd Ed*. London, UK: Ablex Publishing.
- Truax, B. 2012. "Sound, Listening and Place: The Aesthetic Dilemma." *Organised Sound*, 17(3), 1–9.
- Urry, J. 2007. *Mobilities*. Oxford, UK: Polity Press.
- Waldock, J. 2011. "SOUND MAPPING: Critiques And Reflections On This New Publicly Engaging Medium." *Journal of Sonic Studies*, 1 (1). <http://journal.sonicstudies.org/vol01/nr01/a08>
- Westerkamp, H. 2008. 'Soundwalking as Ecological Practice' from *SoundWritings*. Pamphlet. Vancouver New Music. (Reprinted from *The West Meets the East in Acoustic Ecology. Proceedings for the International Conference on Acoustic Ecology*. Hirosaki, Japan, 2006).

"LIKE" the WFAE Facebook page

for up-to-date news of events, opportunities, articles, blogs and current news:

<https://www.facebook.com/worldforumforacousticceology.wfae?ref=ts>

Cryophonics: Re-Performing the Ice Songs of the Canadian Sub-Arctic

By Carmen Braden

In a context that has expanded to the global stage, the Canadian North has become a sparring ground for environmentalists, politicians, and industry. In all the commotion, the sounds made by non-human organisms and elements are falling by the wayside. I seek to address this imbalance by highlighting sub-Arctic sounds through music. Looking specifically at the cryophonics (ice sounds) of Great Slave Lake, I will first examine particular acoustic properties of this environment and secondly my creative products that have resulted from in-depth study.

Cryophonics – Ice Sounds

The cryosphere is any part of the earth made up of frozen water – from glaciers to lake ice, from permafrost to atmospheric ice crystals. Cryophonics is a term I use to describe any sound produced by the cryosphere: ‘cryo’ being the Greek word for ice and ‘phono’ meaning sound. Increasingly, I have been actively listening to, observing, and recording the ice around my home in Yellowknife, Northwest Territories, Canada and currently I am using these ice sounds in musical compositions.

‘Cryophonics’ is not a widely-used term; the only other use of the word that I have discovered is a Sound Cloud identity with two tracks of electronic dance music (<https://soundcloud.com/cryophonic>). I feel the term accurately describes the sound world of ice, and in this context I am using it to describe *naturally occurring ice sounds*. Cryophonics, as I define them, do not include sounds made by instruments made of ice (e.g. ice horns or ice marimbas), nor does it include sounds made by humans manipulating naturally occurring ice such as striking of icicles with mallets.

A substantial amount of research on sounds made by ice currently exists, although the term cryophonics is not used. Generally initiated by some type of industry, research topics include the speed of sound in ice, how sounds of ice may affect marine life, ice sounds interfering with underwater communication, and how the sound of melting ice can be heard as a herald of climate change. Historical reports from European explorers and whalers offer dramatic descriptions of cryophonic activity during the winters their ships were frozen into the Arctic ocean. Oral traditions also share information on the sounds of ice. This oral sharing of information can be found in the Dene and Inuit peoples of northern Canada as well as among truck drivers working on the ice roads of the Arctic and sub-Arctic (Personal communication 2000–2015).

A brief list of cryophonic examples includes: lake ice cracking, icebergs calving or grounding, ice floe grinding, glacier calving or cracking, snow falling, snow squeaking, avalanche rumbling, ice-sheet breakup, and even booms from ice quakes (also known as frost quakes, ice-wedges or cryoseisms (MacKay, 1992) that occur in the ground.

I will now describe in some detail the type of cryophonics that I am most familiar with: those found in the lakes north of Great Slave Lake in the boreal, taiga region of the Canadian sub-Arctic

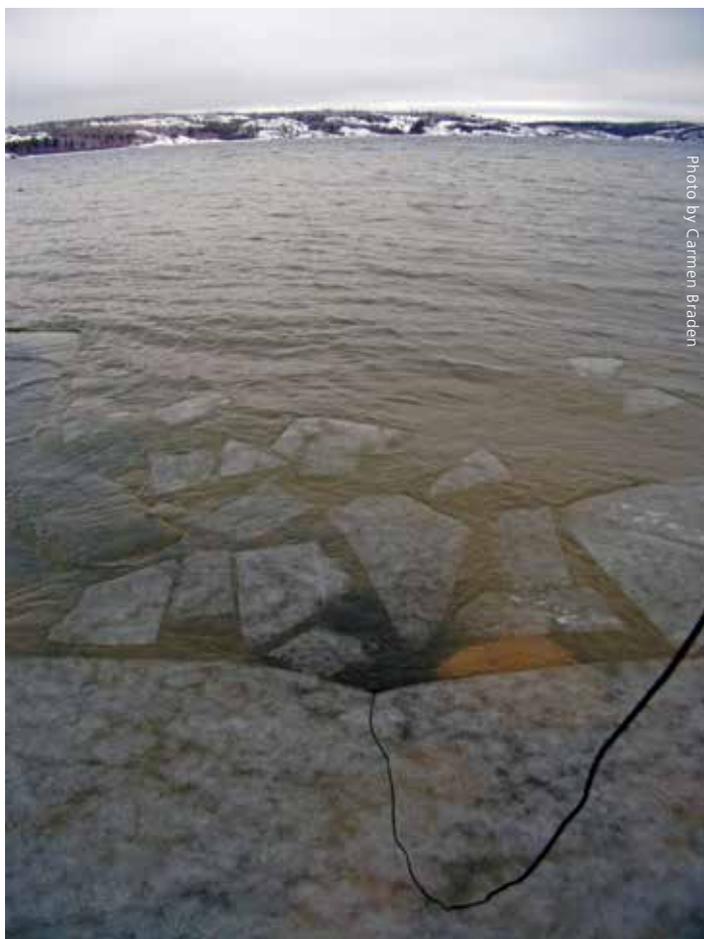


Fig. 1. Hydrophone cable during freeze-up. Prosperous Lake, NT, Canada, October 2011

(to clarify, this is an area quite distinct from tundra or sea ice of the Arctic). (See Fig. 1.)

Beginning in October, the lakes begin to freeze around the shoreline. The actions of the wind and waves can cause the early ice to break up into thin chunks or pans of various sizes that clatter against other pieces of floating ice, land-fast ice, and the shore itself. This mix of moving ice creates a rough, stuttering wash of mid and high frequencies, which sound very similar to the wave sounds themselves.

Through the rest of the winter, the ice covers the lakes completely and grows thicker, on average from four to six feet thick around Yellowknife. This ice appears solid, but is actually very flexible. Cracks in these huge ice sheets are caused by natural stresses such as temperature changes and also by human stresses such as vehicles driving on the ice and causing it to bend. The amazing variety of cryophonics during this time period range from small, quiet cricks to loud, violent-sounding cracks and booms (See Fig. 2).

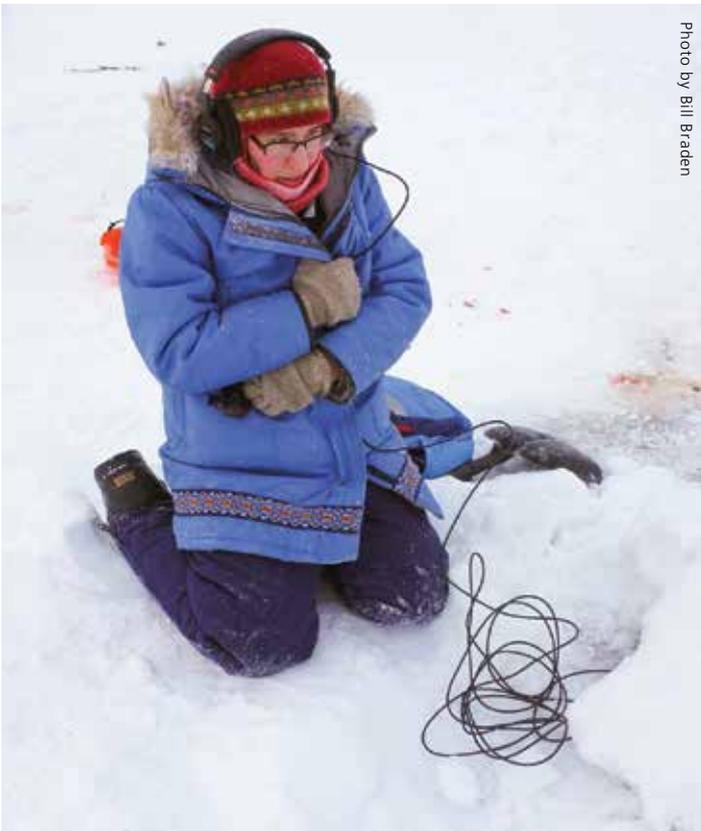


Fig. 2. Carmen recording cryophonics in mid-winter. Great Slave Lake, NT, Canada.

From early April to late May, the ice no longer grows thicker. The sun's warmth becomes strong enough to begin melting the snow on top of the ice and then the surface of the ice. As the ice weakens, water seeps upward through the bottom of the ice sheet and causes the lower part of the ice sheet to become rotten. This process has little to no cryophonic activity, and is actually a period in the ice season soundscape when both natural sounds and human sounds almost vanish from the lake surface. The ice becomes too weak or unsuitable for machines such as skidoos or vehicles, but there is not yet open water for boats or floatplanes to use.

Typically occurring in June, the final phase of the lake ice season is the break-up, or final melting back into the liquid state. As the ice disintegrates, it creaks, pops, grinds, clinks, and creates sustained washes of sound. Tall vertical drainage channels form in the ice and fill with air or water, altering the resonance of the ice sheet. Depending on the conditions of the break-up season such as sun exposure and temperature, the ice sometimes separates into individual, interlocking ice shards that look like long, sharp twisted candles. The diminishing ice cover eventually breaks apart into smaller ice pans which are moved around the lake by wind and wave action to jostle against each other like chandeliers, creating a mass of high frequency sounds (See Fig. 3).

Connecting to Natural Soundscapes as a Composer

My desire to frame the sounds in a context of geographical location and personal experiences has made categories such as 'soundscape composition' or 'ecomusic' applicable to my works. Peter Cusack's 2003 CD of ice sounds from Lake Baikal in Russia is a welcome addition to the cryophonic canon, but is a more documentary approach than what I am attempting. In my compositions such as *Candle Ice*, *Lake Skin*, and *The Ice Season*, I wish to connect the music to the sound source as much as possible.

The final musical result is filtered through my own experience of

hearing and watching its cycle for many years. I don't believe this acknowledgement of the artist's perspective is a dilution of the original natural sound source; instead I view it as a kind of partnership. I transform field recordings into musical compositions and I take these sounds out of their natural space and time into concert halls and academic institutions – this is a separation and abstraction that is almost impossible to avoid. But I cannot in good conscience treat these cryophonics as mere sound objects, free from any meaning or relationship. Their connection to my life and culture is so strong that I am compelled to find out as much as I can about them. By combining the scientific, artistic, and cultural knowledge I gain with my own personal experiences, I create a re-performance of environmentally connected music.

Cryophonics – The Spirit

Sounds made by ice are particular to specific ecosystems and to specific seasonal cycles. They are the soundmarks (Schafer, 1994) of cold places and cold times. In my experience, the ice, and consequently the sounds it creates, also connects the world of living creatures such as humans with elemental, physical, and chemical forces of nature. My approach to cryophonics is based on a belief that naturally occurring ice – for example ice covering a lake – exists as a quasi-biotic phenomenon, one that embodies a spiritual bridge between living and elemental forces, a belief that has arisen from my own experiences of being on the ice as well as from discussions I have had with Inuit and Dene friends. Put simply, I feel the lake has a spirit, and the ice is a part of that spirit that interacts with the rest of the environment. Consequently, I feel the environment is performing these cryophonics as a form of music, and I am re-performing them in original compositions.

By considering ice to be an active and engaged force in the environment, I offer an alternative perspective of *who* or *what* is typically considered to be *aware* or *conscious*. This paradigm-shift of how humans understand nature is being echoed in other research about the natural world. Investigations into plant behaviour, for example, have presented scientifically-founded data that challenges widely accepted notions of the low or even non-existent level of plant sensitivity and responsiveness (Gagliano 2013).

Even if this belief in the ecological spirit of ice is not widely shared, it is difficult to deny that ice is connected to other actors in the environment such as temperature, pressure, wind, gravity and human activities. These forces all weave a complex web of interactions (Arbogast 2007, 148). As an additional contribution to this interplay, I have transformed the result of these environmental interactions – cryophonics – into my own music.

Re-performing the Ice

In 2014, I composed a work for piano trio and electroacoustics that evokes the sounds of canded lake ice. Titled *Candle Ice*, the work was premiered by the Gryphon Trio at the Ottawa International Chamber Music Festival in August 2014. In this composition I transformed observations and field recordings of candle ice in four ways.

1) Acoustic and aesthetic observations informed my approach to rhythm. I wanted to maintain the shifting quality of time that I experienced listening to the original sound source, and used groupings of notes with feathered beaming to evoke the natural rhythm of the ice shards, which ebb and flow with the wind and waves. The performer would have to fit a specific number of notes into a specific amount of time, executed unevenly and with an audible *accelerando* or *ritardando*.

2) Transcriptions of field recordings created rhythmic and melodic motives. I transcribed one specific moment that had two distinct tones and a simple rhythm. The motive was developed rhythmically and melodically in the live instruments, and the actual

excerpt from the field recordings is heard several times in the electroacoustic track.

3) Spectral analysis revealed pitch material. I created a spectral analysis from a field recording of candle ice, and chose the six strongest pitches for the main pitch material in the piece. Additionally, I structured the overall harmonic organization by arranging the pitches as formal structural pitch centres.

4) Physical structures of ice crystals were applied to the music's formal design. The form of ice commonly found in nature is a hexagonal crystal with six points, faces or sides—for example as found in snowflakes. I reflected this naturally occurring number six in the overall design: the number and arrangement of pitches, phrase lengths of six measures, sextuplet sub-divisions, and six states of activity in the music.

What Does the Sound of Ice Mean in Today's Society?

This question is increasingly posed when I present my works about ice. Understandably, the concept of ice melting has become synonymous with the issue of climate change and global warming. My work, however, does not attempt to reflect the changing climate or global warming; even though *Candle Ice* concludes with the melting of lake ice into water, this is not a political statement.

In the global context, ice is becoming a threatened element. In a sub-Arctic context, however, ice melting is a normal, seasonal occurrence. Every fall, almost all of the surface water around Yellowknife freezes and every spring all of the ice melts. Given this sense of normality, it is impossible for me to give the sound of melting ice on a sub-Arctic lake the same politicized meaning that has been imposed upon rapidly receding glaciers and ocean ice (Adams, *Becoming Ocean* 2014; Paterson, *Vatnajökull* 2007). When a sound is removed from its context, the sound becomes rootless, ambiguous, and can lose its original power.

Although I don't live by a receding glacier or by the increasingly ice-free Arctic Ocean, my home is not immune from the effects of global climate change. Right now the ice on the lakes still freezes in the winters and it appears there is no sign of that changing permanently in the near future. Will there be an absence of ice sounds in the sub-Arctic one day? That would be as devastating as the current loss of glaciers and the Arctic ice pack, and is a frightening possibility.

Ice, in my view, is a precious element, bordering on the spiritual. Since I consider the sounds created by ice as a type of environmental music, I consequently approach the musical transformative processes described above as a re-performance in this work as well as others. I feel an endless sense of awe and fascination with the cryospheric environment, and I owe the cryophonics that I have heard and used in my pieces a great debt of gratitude. The beauty and fragility of this particular part of the natural world invites attention, respect, and, in my case, an aesthetic, musical response.

About the Author

CARMEN BRADEN is from Yellowknife, Northwest Territories and is currently a MMus Candidate in Composition at the University of Calgary. Her creative research has examined natural sonic phenomena, rhythms and harmonies, and draws on a life-time of aesthetic observations in the Canadian sub-Arctic. Carmen is the Canadian Association for Sound Ecology (CASE) representative with the World Forum for Acoustic Ecology (WFAE).

References

Arbogast, A. F. 2007. *Discovering Physical Geography*. Hoboken, NJ: John Wiley.



Fig. 3. Spring candle ice. Prosperous Lake, NT, Canada

- Beltaos, S. 1997. "Onset of River Ice Breakup." *Cold Regions Science and Technology*, 25, 183–196.
- Braden, C. 2014. *Candle Ice*. (Piano trio and electroacoustic track).
- Brown, L. C., and C. R. Duguay. 2011. "The Fate of Lake Ice in the North American Arctic." *The Cryosphere*, 5, 869–896.
- Burtner, M. 2011. "EcoSono: Interactive Ecoacoustics in the World." *Organized Sound* 16 (3), December, 234–244.
- Burtner, M. 1998. *Sikuigvik*. (Piano and large ensemble).
- Cruikshank, J. 2005. *Do Glaciers Listen?* Vancouver, BC: University of British Columbia Press.
- Cryophonic. 2011. Sound Cloud. <https://soundcloud.com/cryophonic> (Feb. 18, 2015).
- Cusack, P. 2003. *Baikal Ice*. CD. London, UK: ReR Megacorp.
- Department of Transportation. 2007. "A Field Guide to Ice Construction Safety." Yellowknife: Government of the Northwest Territories..
- Gagliano, M. 2013. "Persons as Plants: Ecopsychology and the Return to the Dream of Nature." *Landscapes: the Journal of the International Centre for Landscape and Language*, 5 (2): Article 14. <http://ro.ecu.edu.au/landscapes/vol5/iss2/14>
- Gagliano, M. 2013. "Seeing Green: The Re-discovery of Plants and Nature's Wisdom." *Societies*, 3, 147–157.
- Heron, R. 1985. "Decay of a High Arctic Lake Ice Cover." Ph.D. diss., McMaster University, December.
- Hobbs, P. V. 1974. *Ice Physics*. New York, NY: Oxford University Press.
- Iliescu, D., and Ian Baker. 2007. "The Structural and Mechanical Properties of River and Lake Ice." *Cold Regions Science and Technology*, 28, 202–217.
- Leonard, C. 2009. *Antarctica: Music from the Ice*. (Mixed instrumentation).
- MacKay, J. R. 1993. "The Sound and Speed of Ice-wedge Cracking, Arctic Canada." *Earth Sciences*, 30, 509–518.
- Paterson, K. 2015. "Katie Paterson, Vatnajökull (the sound of)." *Katie Paterson*. <http://katiepaterson.org/vatnajokull/> (March 8).
- Schafer, R. M. 1994. *The Soundscape: Our Sonic Environment and the Tuning of the World*. Rochester, VT: Destiny Books.



Bell Tower of False Creek

By Dr. Randolph Jordan

I'm looking at an archival photo of Vancouver's Burrard Bridge taken by James Crookall in 1936. The air is thick on the shore of False Creek and the view is eerily similar to what you might see on any January day after the fog has settled in for one of its regular winter sojourns blotting out the high-rise skyline for which Vancouver has come to be known as the *City of Glass* (Coupland 2009). On days like this it's easy to imagine slipping into a past filled with the smoke of industry and the clearance of indigenous dwellings. Such hindrances to visibility don't apply to sound and the 21st Century is well accounted for by the ear. Still, I wonder, what access might the present day soundscape provide to the world that Crookall heard as he focused his lens that day, not long after the bridge opened in the early 1930s?

Acoustic Profiling

It is on one of these thick January days in 2013 under the bridge when I first notice a particularly intense clanging sound emanating from the traffic passing overhead. I track the sound to a pothole that has opened up next to the metal connector that sits directly atop of the southwest concrete pillar on the shore (Fig. 2). You can see right through the hole to the water below, and each passing car activates the metal, firing a pair of mighty bellows down into the hollow structure. There they gather layers of reflection before exiting by way of the arched openings that grace each face of the support structures, leaving home to start their journey out across the land. I wonder if they have always been so loud.

Would Chief August Khahtsahlano have heard such sounds when the bridge first cut into Snauq ancestral lands in 1932, covering the exact spot that once featured the potlatch house of his childhood village? He didn't mention it to Major James Matthews over 20 years of conversation compiled by the archivist for posterity (Matthews

1955). Perhaps it took a while for such decay to set in. I listen to archival recordings from the World Soundscape Project (WSP) at Simon Fraser University. The sound of the metal divider is present on the original tapes recorded near the bridge in the early 1970s (World Soundscape Project 1973), but it is absent in the 1990s iteration (World Soundscape Project 1996). I wonder about the cycles of municipal maintenance that bring this sound out periodically before dampening it down again with asphalt. The seasons of neglect.

On assignment to add recordings to the WSP archive on the occasion of its 40th anniversary, I take a walk with microphones in hand. I define the boundaries according to the limits of the sounds' extension, treating this region as an acoustic community just as parishes of old were defined by the acoustic profile of the village church bell. As it happens, the pothole's profile is roughly equivalent to the east/west boundaries of the expanded Indian Reserve No. 6 established in 1877, later renamed Kitsilano, and which remains contested to this day (Barman 2007). It's poetic that the city's neglect for its own infrastructure sounds out the first phase of Native dispossession in the area, the reserve lands gradually carved up and sold off over the next few decades, justified at the time by claims that these first peoples were not maintaining the land according to principles of "highest and best use".¹ It's a work of cosmic genius that the best spot to hear the past resounding in this sound event now marks the first phase of restitution: the area beneath the bridge was awarded to the Squamish Nation in 2002 after a lengthy battle in the courts following the decommissioning of the railway's right of passage through the area in 1982. To complicate matters, this ruling came at the expense of competing claims by the Musqueam and Tsleil-Waututh First Nations, and so the land's return to reserve status has only heightened the complexities of its overlaps (Roy 2009).

As I walk, the Squamish plot intersects with a municipal park, private marina, public pier, condominium developments, and transient campsites paying tribute to the decades of squatting in the area prior to the major redevelopment of the 1970s that turned nearby Granville Island from dilapidated industrial wasteland to one of the city's most popular marketplaces. While usage differences along my route are clearly demarcated to the eye by fences, signs, paths, tended greens and barren expanses, the sound of the pothole cuts across all these spaces, enacting the reality that their intended separations are largely fictional on the ground. For critical geographer Nicholas Blomley, acknowledging the simultaneity of such overlapping claims to the land, and their historical depth, is an act of "unsettling the city" (Blomley 2002). I think about how the sound of the pothole fosters what some call "unsettled listening," moving without bias across the space, reflecting its many surfaces and inviting contemplation on their depth (Jordan 2014). To the unsettled ear, a village church bell maps out a community necessarily founded upon imperialist conquest, just as the "ringing" of the pothole sets the area's contested spaces resonating. These unsettling resonances are revealed most clearly as they bind together my conversations with people along the way, oral/aural histories of the pothole in the making.

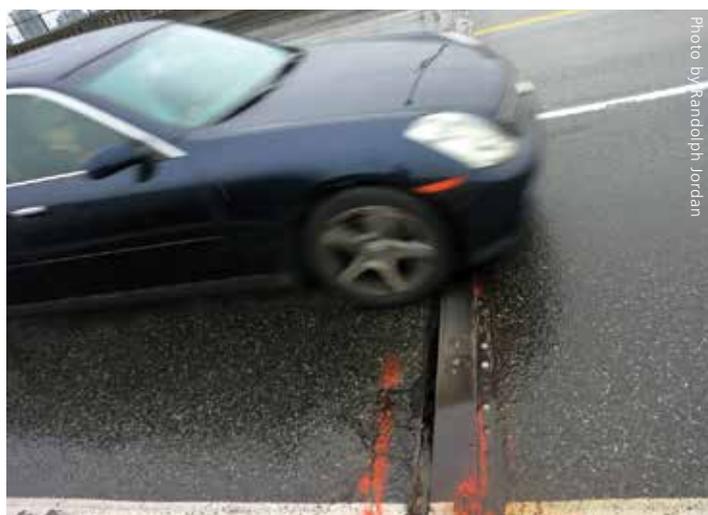


Fig. 1. (Left) Archival photo of Vancouver's Burrard Bridge, 1936.

Fig. 2. (Above) Pothole atop of the southwest concrete pillar

Talking Points

I'm standing in the bike lane on the surface of the bridge, hanging my microphone over the recently installed concrete dividers into oncoming traffic as I try to get as close as possible to tires making contact with the hole. A middle-aged woman in sharp business attire with an armful of DVDs slows from her brisk pace to ask what I'm listening to. We're on city property sanctioned for use as a public walkway, and my transgression onto the bike path and partway into traffic has caught her attention. I tell her I'm interested in the breadth of this pothole's audibility, and for a bit of context I tell her about acoustic ecology and the quest for more humane sound environments. The irony of the traffic's challenge to our conversation isn't lost on her, and she wonders why more hasn't been done to quiet our city over the decades. Before we part she suggests that I also try to record the pothole from the other side of the span to improve my coverage. I forget to ask her what's up with all the DVDs.

Beneath the bridge, a young man with long hair and a denim jacket descends from the construction scaffolding set up for maintenance. In my many visits to this spot, I've never seen anyone up there, municipal employee or otherwise. He's trespassing on city property, and I ask him how it sounds up there. The rhythm of the traffic sounds like beats, he answers, though it's a bit sketchy on the rafters. We chat for a few minutes about the possible uses for my recordings. With him, I'm inclined to talk more about creative renderings than objective documentation, and I oblige his request for info on my handle so that he can look me up online. I think about how amazing it would be to get a recording from directly under the hole at the top of the scaffolding. I climb a couple of levels up, but quickly chicken out. The view is good, but I'm afraid of heights and this particular scaffolding appears to have seen better days. I can't help but wonder why it's always deserted, and how long it takes for any work to get done on the structure.

I make my way to Pier A on the east side of the bridge. I pass the traditional Snauq totem pole with arms stretched out in welcome over Cultural Harmony Grove, marking the spot where the Kitsilano Trestle Bridge once crossed the shoreline. My aim on the pier is to

capture some of this relationship between land and sea, marked here by boats of leisure rocking gently to the constancy of the rhythmic pothole sounding in the distance. I pass the electrical box feeding the various hookups for the boats, and I notice that the pothole is in tune with the 60-cycle hum. What's that about? A light rain starts to fall, activating the many tarps as I dip my microphone into the spaces between the decks and the rubber bumpers that squeak and scrape as the boats push them up against the dock. I poke around, tugging on ropes to facilitate a few sound events. This pier is publicly accessible, unlike the private marina directly beneath the bridge, but the boats are private property. The caretaker happens by and checks in with a certain measure of suspicion. "Can I just ask what you're doing?" "I'm recording sounds of creaking around the docks and stuff," I say. "Just for the integrity of the dock?" he probes. The possibility had never occurred to me, though I suppose one could learn a lot from the many forensically loaded sounds I've been capturing along the wooden structure. But no. I tell him about the World Soundscape Project. He has no follow-up questions, and parts with an "okay, well, knock yourself out. Glad you're not breaking into any boats." We both chuckle.

I finish my walk by heading south beneath the bridge where an art photographer requests that I avoid the field of the mammoth lens he has mounted in the back of a cube van to take a long exposure of a gutted computer case propped up against one of the support pillars. I'm amused by the fact that he's on reserve lands laying claim to a temporarily private enclave for his own profit. I'm pretty sure he's not Squamish, though I suppose I should assume nothing. As a fellow artist documenting the spaces under the bridge, I ask him about his project. He's reticent to give any details, though, and doesn't appear to care at all about what I'm doing. There's an air of irritation that he has to deal with even the scant public he encounters in this barren landscape. I want to press him further, but before I get the chance a cyclist who has been hovering in the background bursts in to ask me about my gear. When I reveal that I'm using a stereo mic with the aim of capturing a broad range of ambient sound, he asks if I can recommend anything on the opposite end of the spectrum. He wants



Photo by Randolph Jordan

Fig. 3. Pillars of Burrard Bridge



Fig. 4. Bridge today

to interview people in the field while minimizing background noise, and I suddenly realize that I've reached the limits of the pothole's profile as it's not audible anymore from this distance.

We're not far from the limits of the reserve plot itself, marked here by another pole. This one's electrified, selling the bridge's surface dwellers on everything from nasal drip to Native-owned casinos and global getaways. It's the first billboard in the area since they were outlawed by municipal regulation in the 1970s to comply with Vancouver's new self-definition as "spectacular by nature" (Noble and Fujita 2012, 6). But they aren't illegal on reserve lands, and while the welcome pole down by the water invites newcomers with carvings of traditional bird imagery, this electric pole is a giant flip of the bird to the city's empty gesture in relinquishing these ostensibly unusable lands to the Squamish. Not much can be done with the space under the bridge, but the sign rises tall enough to reach the eyes of daily thousands on the surface, generating millions of dollars in revenue for the band (Stewart 2010). How's that for "highest and best use"? It's dead quiet too, while remaining visible even through the thickest of January fogs.

Here Goes Nothing

A few months later, I return to the bridge's southwest pillar on the shore intending another attempt to climb the scaffolding with my recording gear, but the sound of the pothole is gone. I check the surface, and it has been filled in. My recordings have captured an auditory fixture that no longer exists, like so many other soundmarks in the WSP archive. R. Murray Schafer once pronounced gravely that the disappearance of some kinds of sound threatens the death of any culture in which they were embedded (World Soundscape Project 1974). I can't help but think about how tracking the sound of the pothole through this area revealed to me how quiet the return of culture has been here.

The Kitsilano Trestle Bridge was the first breach of the reserve in 1899 (Roy 2009), and the sound of trains rolling through the region and across the water to the downtown core would have been a staple of life on these lands before the first state-sanctioned clearances of 1913 (Barman 2007, 17), long before Burrard Bridge would begin pouring the sounds of automobile traffic into the region. Informed by this history, the metallic quality of the pothole's clanging and its coincidental profile recalled the lost history of the soundscapes of dispossession, while simultaneously mapping it out on the ground. What seems most fitting, though, is that this instructive soundmark was ephemeral, perhaps cyclical, awakened momentarily to open a pathway into the past only accessible now by occupying an unsettled position at the intersection of the area's overlapping claims to use. I want to use my recordings to make a piece that reflects this ephemerality, but I'm not sure how.

The evening that I finished my recordings, I go to the Western Front to sit as respondent for an Acoustic Cartographies event co-organized by the Department of Geography at UBC and the School of Communication at SFU.² Students present audio pieces mandated to explore the nuances of place, and one of the best ones deals with the community gardens that have sprung up all over the recently decommissioned railway corridors that criss-cross the city from False Creek stretching deep into south Vancouver. It opens with the sound of trains gradually receding into the distance and leaving in its wake the sounds of communal gardening amidst the urban din. It is a well-constructed piece, lots of clear and punctuating sound phrases that appropriately evoke the communal nature of these spaces. However, once the introductory train sounds are gone, there is no further indication that these gardens sprout between the defunct tracks, a fact that our eyes cannot escape in situ. Nor does the piece address the political implications of public trespassing on privately owned lands that the rail companies will

try their damndest to sell for their own profit rather than fulfill the original mandate that these revert back to reserve status once no longer in use (Barman 2007, 29). These are corridors of limbo where contest is marked by quietude. How can one make an audio piece about something we can't hear?

I find the answer for my own piece inside one of the pillars of the bridge that acted as receptacle for the energy of the pothole's blasts. The portals have been grated, but the one most accessible from the ground has been peeled back enough to stick my microphone inside of it. [Fig. 3]. The reverberation is astonishing, and the space acts as a nexus for all the sounds of the area that meet here to collide, mingle, and merge. Walking the land within earshot of the pothole emphasized the politics of movement through a variety of differently occupied spaces all bound together by a single sounding event. Here, inside the pillar, the situation is different, the point of overlap for each of the intersecting spaces I have passed through, a gathering place for the sounds that accumulate and become undifferentiated and interchangeable. In the amorphousness, we can hear almost anything, imagine almost anything, something like the auditory equivalent of fog. Traffic noise gives way to the possibility of any number of industrial activities that sonorized the region in decades past, the beating of drums in the decades before that, and even the winds and distant thundering that reach back further still into the mists of time. The sounds of the gulls pierce through this soundscape as effectively as they do outside, and when there's a lull in the thumping of traffic, a profound quietude emerges that belies the bustle of the area. Here I can cast my mind back to another time, even as the fog that obscures the visual complexities of the land lifts to reveal the downtown condos glistening in the sunlight at the bridge's north end. The soundscape inside the pillar remains fixed, a stability that will live as long as the bridge itself, and is perhaps just as old.

Funnily enough, the inaccessibility of the built environment inside the pillar makes it open to listening exclusively by way of the microphone. So it seems fitting that the space comes to serve as the point around which my soundwalk composition revolves. In "Bell Tower of False Creek," I position the interior of the pillar as the central point and track the pothole's acoustic profile outwards across the land, returning regularly to listen for how these sound environments relate to each other within the resonance chamber before moving out again once more. Grounding the piece within this space, I emphasize the role that technological listening plays in unsettling these lands for my ear, inviting continual reflection on how the sounds that I recorded in 2013 might cast back to those heard by James Crookall in 1936. If only he had sound recording equipment with him alongside his camera gear, we might be able to verify today if what he heard continues to resonate through to the present, architecturally enacting the very premise of documentary media practice itself.

About the Author

RANDOLPH JORDAN, PhD, is a Research Associate with the World Soundscape Project at Simon Fraser University in Vancouver where he is designing research methodologies to address the enmeshing of media and place. He is writing a book manuscript for Oxford University Press, entitled *An Acoustic Ecology of the Cinema*, in which he develops the theoretical framework for thinking about film sound by way of acoustic ecology. He recently completed a postdoctoral fellowship at SFU in which he applied this framework to a case study of the Vancouver soundscape on film. This work also informs his internationally exhibited filmmaking, photography, and sound art (www.randolphjordan.com).

Endnotes

1. Nicholas Blomley has a good discussion of how the concept of "highest and best use" plays into urban development issues in Vancouver in his book *Unsettling the City* (82-87).
2. The work is archived here as "Audio Work 1," <http://front.bc.ca/events/acoustic-cartographies-audio-works-2013/>

References

- Barman, J. 2007. "Erasing Indigenous Indigeneity in Vancouver." *BC Studies*, 155 (Autumn), 3-30.
- Blomley, N. 2004. *Unsettling the City: Urban Land and the Politics of Property*. New York, NY: Routledge.
- Coupland, D. 2009. *City of Glass: Douglas Coupland's Vancouver (Revised Edition)*. Vancouver, BC: Douglas & McIntyre.
- Jordan, R. 2014. "Unsettled Listening: Integrating Film and Place." *Sounding Out!* (August 14). <http://soundstudiesblog.com/2014/08/14/unsettled-listening-integrating-film-and-place> (March 21, 2015).
- Matthews, J. S. 1955. *Conversations with Khahtsahlano 1932-1954*. Vancouver, BC: City Hall. https://archive.org/details/ConversationsWithKhahtsahlano1932-1954_346 (March 21, 2015).
- Noble, N. and M. Fujita. 2012. *Neon Vancouver, Ugly Vancouver*. Vancouver, BC: Museum of Vancouver.
- Roy, S. 2009. "Mapping Tool: Kitsilano Reserve." *Indigenous Foundations*. Vancouver, BC: First Nations Studies Program, UBC. <http://indigenousfoundations.arts.ubc.ca/home/land-rights/mapping-tool-kitsilano-reserve.html> (March 21, 2015).
- Stewart, M. 2010. "The Rise of the Squamish Nation." *Vancouver Magazine* (March 1). http://www.vanmag.com/News_and_Features/Politics/The_Rise_of_the_Squamish_Nation?page=0%2C0 (March 21 2015).
- World Soundscape Project. 1973. Reel 71, track 8. Vancouver, BC: Simon Fraser University. <http://www.sfu.ca/sonic-studio/srs/Van71.html> (March 21, 2015).
- World Soundscape Project. 1974. "Soundscapes of Canada (Episode 3: Signals, Keynotes and Soundmarks)." *Ideas*. Toronto, ON: CBC Radio.
- World Soundscape Project. 1996. Dat 6, track 15. Vancouver, BC: Simon Fraser University. <http://www.sfu.ca/sonic-studio/srs/Vdat6.html> (March 21, 2015).

VISIT ONLINE THE WFAE NEWSLETTER

Published as a bimonthly supplement to *Soundscape: The Journal of Acoustic Ecology*, the Newsletter is available for download at:

<http://wfae.proscenia.net/newsletter/index.htm>

Sound in the Land – Music and the Environment: A Festival Celebrating the Earth

By Dr. Carol Ann Weaver

We hope to listen to the earth differently, finding new ways to create musical responses to our beautiful planet stressed by climate change. We are already part of the earth's ecology so our music is part of a wider global sound.

(Carol Ann Weaver, Artistic Director and Coordinator, Sound in Land)

“Sound in the Land 2014 – Music and the Environment,” a festival/conference held June 5–8, 2014 at Conrad Grebel University College/UW, explored ways of hearing the earth and listening to the environment. The event was endorsed as an official WFAE conference, featuring WFAE President Eric Leonardson, as well as other WFAE members including Sabine Breitsameter. The event also related closely to WFAE’s Canadian affiliate, Canadian Association for Sound Ecology (CASE) featuring CASE Board members Eric Powell, Matthew Griffin, and Carol Ann Weaver. There were 116 conference registrants with 300-plus additional attenders at individual concerts and/or conference sessions. All materials can be readily accessed at the conference website which also includes the complete conference booklet, with all concerts and conference sessions fully annotated.¹

The third in a series of highly successful events, “Sound in the Land” combined concerts – choral, vocal, chamber, orchestral, soundscape, multimedia, and folk/jazz – with workshops, academic conference sessions, nature/sound walks, and singing as we explored ecological understandings of music and sound, both locally and globally. This event brought together musicians, environmentalists, ethnomusicologists, writers, and artists into a setting, which blended music, various arts, sciences, soundscape studies, ethnomusicology and ecomusicology. The focus of “Sound in the Land” was the environment and our relation to it, both sonically/musically and ethically. This proved to be extremely timely due to our increasing awareness of climate change, over-population, soil/water/air contamination, shrinking natural habitats, and endangered species.

Of greatest significance for “Sound in the Land” was the keynote address delivered by R. Murray Schafer, internationally renowned WFAE founder and creator of the term and concept “soundscape.” His address, given in dialogue with Eleanor James, brought to the fore some of the cornerstones of his widely influential thinking about sound, the environment, and work with his own Wolf Project, a ritual event which takes place in Ontario’s Halliburton Forest.² Unlike celebrities who show up only for their address, Schafer, along with James, graced the entire festival, attending and participating richly in all events. During sonic artist Natascha Rehberg’s sound installation, for example, Schafer spontaneously directed a group listening exercise; during Canadian cellist Leanne Zacharias’ sound/space/improvisation workshop, he was found seated on the grass,



Fig. 1. Murray Schafer, Leanne Zacharias (cello), Carol Ann Weaver, Michelle Bunn (with microphone), Eric Powell (kneeling), et al, Improv Workshop at Sound in Land, June 7, 2014

clapping a pulsing rhythm with his own two shoes! (Fig. 1.)

Another keynote address – equally important, informative, and inspiring – was given by the foremost South African carnivore researcher Gus Mills, who presented and discussed natural sounds from the Kalahari Desert, including rarely heard cheetah calls, hyena whoops, and other ambient sounds unique to this part of the world. His address was framed by a cappella vocal music from South Africa, including the famed “Nkosi Sikelel’ iAfrika”, sung lustily by two University of Waterloo-based choirs. Also, South African marabi-styled music was performed by an Afro-beat band.

A strong and remarkable component of “Sound in the Land” was the sheer amount (and quality) of music by soundscape and environmentally focused composers and sonic artists from Canada, USA, Germany, Switzerland, and beyond. These were presented in a series of orchestral, chamber, choral, soundscape, gamelan, and folk/jazz concerts, occurring both indoors and outdoors. Featured works included environmental pieces by the lake by R. Murray Schafer,



Photo by Alan Morgan

Fig. 2. Canoe birds at Columbia Lake, Dawn Concert, Sound in the Land, Sunday, June 8, 2014



Photo by Jennifer Konkle

Fig. 3. Good Hearted Women singers, Dawn Concert, Sound in the Land, Sunday, June 8, 2014

Jennifer Butler, and Emily Doolittle. Soundscapes were presented by Eric Leonardson, Nicholas Cline, Emily Doolittle, James Harley, Cam McKittrick, Ursula Meyer-König, Felix Deufel, Yannick Hofmann, Natascha Rehberg, and Klaus Schüller. Orchestral, chamber, choral and/or African-themed music was performed by Janet Peachey, Larry Warkentin, Carol Ann Weaver, Alberto Grau, Peteris Vasks, Larry Nickel, Carol Dyck, Esther Wiebe, and others. Prominent improvisers included Mark Hartman (violin), Tilly Kooyman (clarinet), Leanne Zacharias (cello), Mary Wing (flute), Karen Ages (oboe), Heather Carruthers (bassoon), Debra Lacoste (trumpet), with improvisatory vocalists Peg Evans, Bonnie Brett, and Rebecca Campbell. One of the most spectacular events was the visually and musically stunning multimedia piece, *Earth Songs*, by internationally acclaimed Korean sonic artist Cecilia Kim. This piece brought together artists and musicians from Korea and Canada, as it combined traditional Korean music with poetry by Canadian environmentalist poet John Weier and evocative vocals by Canadian singer Rebecca Campbell.

Besides the Korean troupe, other performing ensembles included Waterloo Chamber Players Orchestra, Inter-Mennonite Children's Choir, Mino Ode Kwewak N'gamowak (Good Hearted Women Singers), Rockway Collegiate Combo, UW University Choir, Tactus Choral Ensemble, Skyros String Quartet, Sound in the Land Festival Choir, and Dawn Concert Chamber Ensemble. The Grebel Gamelan (of Balinese tradition) led by ethnomusicologist Maisie Sum performed both instrumental and vocal music, including the spectacular "Kecak" – monkey chant. As well, 14 folk music groups performed throughout the festival.

Presentations ranged from soundscape theory to cultural and ethnical meanings of environmental sound. Studies dealt with sonic aspects of natural and human-adapted environments. Essay presentations included topics of ecomusicology, ethnomusicology, acoustic ecology, biology, environmental studies, environmentally themed ritual and worship practices, ethics, and consciousness-raising.

Several conference essay submissions relating specifically to acoustic ecology were discussed. German scholar, ecomusicologist, and WFAE member Sabine Breitsameter from Dieburg, Darmstadt presented research on soundscapes and on Canadian pianist Glenn Gould's innovative 1977 documentary "The Quiet in the Land" (Gould 1977). This documentary on Canadian Mennonites introduced the concept of "polyphonous audio aesthetics of 'contrapuntal radio'" to radio soundscapes (Breitsameter 2015). Dr. Breitsameter brought along six German students who also presented on soundscapes and sonic studies. WFAE President Eric Leonardson spoke about acoustic ecology, suggesting "ethical listening offers ways to

balance information with intuition and reflection, bringing the hope of recovery for various endangered species, and for our beleaguered planet" (Leonardson 2014, 13). Biologists/bird experts Lyle Friesen and Gus Mills presented highly complex calls of North American and South African birds, respectively, showing these sounds to be part of a natural landscape we need to preserve. Composer and sonic researcher Emily Doolittle similarly explored unique sonic properties of the much-admired Hermit Thrush. Large tracts of space and time were sonically accounted for within Virgil Martin's study of 100 years within rural regions of Waterloo County, Ontario, providing a fascinating array of changing environmental soundscapes due to technology and cultural practices. Poet John Weier humorously provided a similar, though highly specified, sweep of rural soundscapes from Ontario's Niagara region, within a recent twenty-year span. Other prominent sonic studies led us to Balinese gamelan gecko evocations by ethnomusicologist Maisie Sum, to Estonian regilaul singing by conductor, musicologist Mark Vuorinen, to Mexican Old Colony and Manitoba Plautdietsch (Low German) "songscapes" by Judith Klassen and Doreen Klassen, respectively.

Workshops and installations featured improvisatory vocal sounds by sonic artist Wendalyn Bartley, improvisatory dance movements in response to nature by dancer Diane Chapitis, Schafer-esque listening exercises by cellist Leanne Zacharias and educator Douglas Friesen, and an interactive sonic tour to the city of Darmstadt by German sonic artist Natascha Rehberg. A dawn chorus sound walk, led by biologist Lyle Friesen, took attendees to natural forested areas to hear the songs of nesting birds, including the elusive Wood Thrush, now designated as a threatened species in Canada.

The Sunday morning Dawn Concert at nearby Columbia Lake was certainly one of the most grounding, encompassing, spiritually centered, memorable, and engaging events of the entire festival. Organized by Schafer specialists Tilly Kooyman and Rae Crossman, this event featured music and ritualized drama from Schafer's *Princess of the Stars*, with singers standing in moving canoes (Fig. 2). A dancer and roving musicians performed earth-themed music while circling areas of the grassy and treed lakeshore. Singing and greeting of the four directions by Mino Ode Kwewak N'gamowak (Good Hearted Women Singers – a First Nations group) evolved into a continuous circle dance (Figs. 3 and 4) which encompassed everyone gathered, providing full closure to this evocative, celebrative event. It is only correct that we listen to those who have first lived on this land in order to discover new ways to hear, respect, and honour this sacred earth.

There are many ways to listen to the earth. This festival/conference represents one of many other like-minded events which are bound

to grow exponentially as our planet becomes increasingly stressed by global warming, with the loss of species and habitats, and rapidly expanding human populations. Various comments allowed us to know this event was making a unique impact. Writer for *Alternatives Journal*, Michelle Di Centio, comments, “Everyone involved [at “Sound in the Land”] should be congratulated for providing a unique, informative and positive way for people to explore the environment by changing how they hear the world around them” (Di Centio 2014, par. 9). Writer Rae Crossman, in an email to the author, remarks, “The overall atmosphere of the festival/conference was stimulating and inspiring ... can’t ask for more than that. And so many diverse elements in such a short time, yet with an overall sense of unity and community.”³ And composer/pianist Keenan Reimer Watts, also in an email, writes, “The environmental theme of this festival was a great way for people from all over the world to come together and create music and conversation that drew us together in a common cause. It was an inspiring and moving event, one that I look forward to attending again in the future!”⁴

As we engage an even broader spectrum of people to help listen to the earth, we may well consider the words of Al Gore in his book, *The Future*. Though he primarily addresses global warming and planetary degradation, Gore’s words can also apply to sonic matters and acoustic ecology. He describes two unknown paths, one which “leads toward the destruction of the climate balance on which we depend, the depletion of irreplaceable resources that sustain us, the degradation of uniquely human values, and the possibility that civilization as we know it would come to an end. The other leads to our future” (Gore 2013, 374). Thus, we go forward – there is no other alternative!

About the Author

CAROL ANN WEAVER, composer, pianist, writer, is Professor Emerita at Conrad Grebel College/University of Waterloo, as well as Secretary of Canadian Association of Sound Ecology (CASE), Chair of the Association of Canadian Women Composers (ACWC), and is founder/artistic director of *Sound in the Land – Music and the Environment 2014*. Her music and soundscapes are often Africa-influenced. Her music is heard in North America, Africa, Europe, and beyond.

Endnotes

1. The conference website <https://uwaterloo.ca/grebel/sound-land-2014> provides further context, links, visuals, and a conference video. A complete list of presenters, events, and short abstracts can be found on the Conference Booklet link, https://uwaterloo.ca/grebel/sites/ca.grebel/files/uploads/files/sl14_booklet_program_0.pdf (both accessed Jan. 21, 2015).
2. One of the most inclusive and poetic accounts of Schafer’s Wolf Project is “Notes from the Wild: An Account in Words and Music of R. Murray Schafer’s And Wolf Shall Inherit the Moon” by Rae Crossman, found at <http://www.tnq.ca/article/notes-wild-account-words-and-music-r-murray-schafers-and-wolf-shall-inherit-moon> (accessed Jan. 21, 2015).
3. Rae Crossman, email message to the author, June 18, 2014.
4. Keenan Reimer Watts, email message to the author, July 1, 2014.

References

- Breitsameter, S. 2015. “The Ordering of the Sounds: On the Homogenization of Listening in the Age of Globalized Soundscapes.” In C. A. Weaver, D. Klassen and J. Klassen (Eds.), *Sound in the Land – Music and the Environment*. Waterloo, ON: Conrad Grebel Review, Forthcoming, Fall, 2015.



Fig. 4. Circle Dance, Sunday Dawn Concert, *Sound in the Land*, Sunday, June 8, 2014

Di Centio, M. 2014. "Music and Mother Earth," June 18. *Alternatives Journal: Canada's Environmental Voice*. Accessed January 21, 2014. <http://www.alternativesjournal.ca/community/blogs/aj-special-delivery/music-and-mother-earth>

Gore, A. 2013. *The Future: Six Drivers of Global Change*. New York, NY: Random House.

Gould, G. 1977. "The Quiet in the Land." In Russ Germain (Producer), *Ideas*. Toronto, ON: Canadian Broadcasting Corporation, March 25.

Leonardson, E. 2014. Abstract for "Acoustic Ecology and Ethical Listening." *Sound in the Land – Music and the Environment Conference Booklet*. https://uwaterloo.ca/grebel/sites/ca.grebel/files/uploads/files/sl14_booklet_program_0.pdf (January 21).

Additional Links

"About Sound in Land." 2012. *The Record*. <http://www.therecord.com/living-story/2601058-university-of-waterloo-professor-helps-document-evolution-of-mennonite/>

Alternatives Journal. 2014. <http://www.alternativesjournal.ca/community/blogs/music-and-mother-earth-0>

Canadian Mennonite, 18: 13 (2014, June 23). <http://www.canadianmennonite.org/reader/4198>

CBC news, KW. <http://www.cbc.ca/news/canada/kitchener-waterloo/andrea-s-five-fun-things-to-do-this-weekend-june-7-8-1.2665948>

Hill, V. and Reid, R. 2014. "Arts & Life," *The Record*, Thurs. June 5, D3. <http://www.therecord.com/whatson-story/4558271-sound-in-the-land-celebrates-nature-and-music-with-dash-of-mennonite-culture/>

Mennonite World Review. 2014, April. <http://mennoworld.org/2014/04/14/music-conference-to-celebrate-the-environment/>

Pointner, E. 2015. "Sound in the Land Report Back." *CMC Notations*, Winter, 20-29.

http://issuu.com/canadianmusiccentre/docs/cmc_w2015_hr/21?e=10808708/11476911

UW Bulletin, 2009. <http://www.bulletin.uwaterloo.ca/2009/may/28th.html>

WholeNote (Southern Ontario Arts Publication). 2014. Archived. <http://us1.campaignarchive2.com/?u=e00350ccdb1199290928ff746&id=e9639e2951>.

World Federation of Acoustic Ecology endorsement. <http://ericleonardson.org/whatsnew/tag/world-forum-for-acoustic-ecology/>

Reviews

Review of Jennifer Schine's film documentary *Listening to a Sense of Place* (16:22 minutes) & radio documentary *The End of the Line*

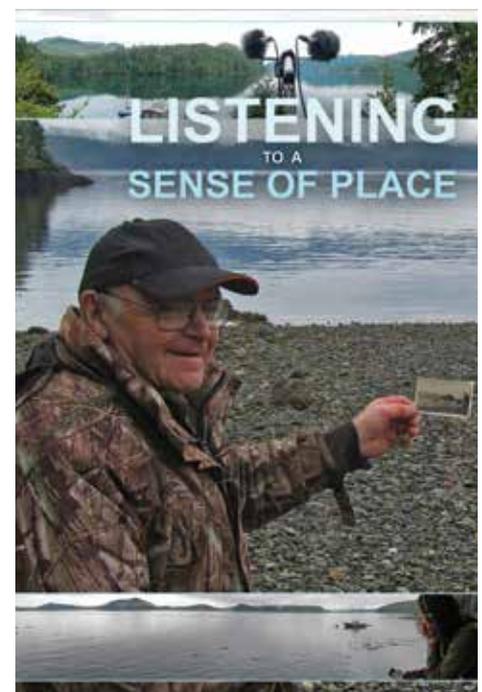
Reviewed by Giorgio Magnanensi

Every sound was a voice, every scrape or blunder was a meeting – with Thunder, with Oak, with Dragonfly. And from all of these relationships our collective sensibilities were nourished. (Abram 1996, ix)

Every sound is a voice – listening, sensing and being – harmonizing our nature within nature. This is the poetic and beautiful truth we discover listening to Billy Proctor's voice, his stories and his love for his place in *Listening to a Sense of Place*, an award-winning short film by Jennifer Schine co-created with Greg Crompton. Jennifer's documentary and the Canadian Broadcast Corporation (CBC) radio piece for the program, *Living Out Loud*, focus on Billy Proctor and Echo Bay in the Broughton Archipelago of British Columbia's Central Coast. There is no sentimentality in Jennifer's impassioned research based on her M.A. thesis work at Simon Fraser University's School of Communication under Barry Truax.

There is no romantic or exotic voyeurism in analyzing what it means to embody a harmonized identity within ourselves and our space when the sonorous world of *every voice* is feeding our own life, opening our senses, while we become resonating bodies in the reverberant landscapes of a pristine ecosystem.

Listening to a Sense of Place shows us how to discover the meaning of "*une écoute poétique de la nature*," a beautiful metaphor that Ilya Prigogine and Isabelle Stengers used more than thirty years ago to define new models of participation of the human being to the world (*La Nouvelle Alliance* 1979, 353–393). Jennifer's approach, foregrounding acoustic-based field research through the visual medium of film and the personal essay form of radio, resonates and enhances that very way of listening, and shares the awareness of the creative interaction occurring between scientific and cultural fields. With accurate methodology and scholar-



Listening to a Sense of Place: DVD Cover Art



Fig. 2. Billy and Jenni on Boat

ship, Jennifer's work substantiates awareness of vivified models of thought and disrupts disciplinary borders: spaces open to diverse experiments in the domains of education, research, performance and creation. This is the power of sound-based research crossing and maintaining its integrity in film and radio genres.

In the soundscape of Echo Bay, revealed by and through Billy Proctor's stories, activities, objects and voices, we appreciate the enhanced quality of a place in which we feel embedded and where the sensory experience and the creative energy of a living existence converge. Attentive listening and Jennifer's *memory soundwalks* extend the concept of soundwalk methodology to include audio recording of participants' reflection of memories and stories while walking or moving through a particular place imbued with personal meaning for them. All these are not just beautiful activities that subvert the usual dichotomies of culture and nature, body and mind – they are energizing tools to acknowledge human possibilities that are often imagined but rarely defined or fulfilled. As expressed in Jennifer's work, a consistent practice of active listening can determine the gradual definition of a living *compositional* system. As a living system is a cognitive system, listening to and composing our life within this process is a process of cognition.

An agent of this sensuous world, Billy has been always listening while the world also perceives itself through him. Musical categories of Harmony and Counterpoint, while they might seem *abstruse* to some, are here resounding in the pure clarity of an embodied life of a person. This is especially present in the documentary film

and radio piece precisely because Jennifer is a practiced listener and soundscape researcher who grounds these sensibilities profoundly in both mediums. I like to think that the same word *persona* is actually rooted in a sonorous meaning, as “*person*” might as well mean “*through sound*” (Latin *per sonum*); and Jennifer's work reinforces that we are all *personae*, through sound.

Jennifer's sound-thinking and Billy's embodied and sensuous life are invitations not to treat reality as if it were a full presence, absolute, but to let flourish inside us a love for diversity, for the unexpected, for a λόγος (logos) whose inspiration goes back to Heraclitus' thinking: a λόγος that is in constant motion, that draws strength and life from its own contradictions, and invites us to oppose ourselves to an ontology that considers everything as emanating from a sole source. To compose our own



Fig. 1. Video Shoot

life means to put things together, to create and welcome relations, memories and resonances, it means *entendre* and *comprendre*, and to be able to listen ourselves to a higher level of sharing: *a sense of place* that wishes to be also resounding. Jennifer's work clearly and creatively positions itself at the core of a worldwide movement of artists and researchers who are actively at work finding ways to address and solve ecological problems and her film and radio piece instruct as well as inspire in these ways.

About the Author

GIORGIO MAGNANENSI is a composer and conductor. He is artistic director of *Vancouver New Music*, *Laboratorio Arts Society* and lecturer at the School of Music of The Vancouver Community College. giorgiomagnanensi.com

References

- Abram, D. 1996. *The Spell of the Sensuous: Perception and Language in a More-Than-Human World*. New York, NY: Random House Inc.
- La Nouvelle Alliance, Métamorphose de la science*. 1979. Paris: Gallimard.
- Link to film, “Listening to A Sense of Place.” <http://summit.sfu.ca/item/13703>
- Link to CBC piece, “The end of the line.” <http://www.cbc.ca/player/Radio/Living+Out+Loud/ID/2625495018/>
- Link to audio piece, “Conversations with Billy Proctor.” <http://front.bc.ca/events/conversations-with-billy-proctor/>

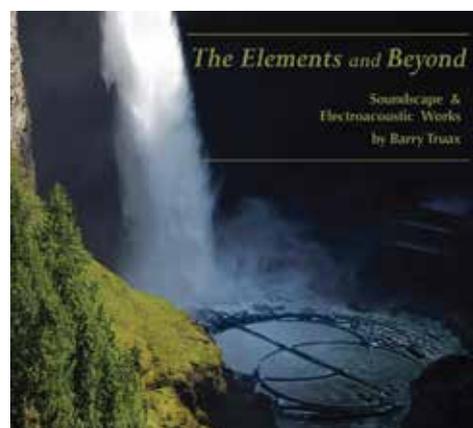
Reviews (continued)

An Album of Environmental Force: *The Elements and Beyond: Soundscape & Electroacoustic Works.*

Barry Truax, Cambridge Street Records CD CSR 1401, 2014,
62 minutes

For Barry, on the occasion of his retirement from Simon Fraser University

Reviewed by Tyler Kinnear



The Elements and Beyond: Cover Art

The *Elements and Beyond* marks Barry Truax's ninth solo album.¹ At 62 minutes in duration, the CD features compositions informed by water (*Chalice Well* 2009), fire (*Fire Spirits* 2010), air (*Aeolian Voices* 2013), earth (*Earth and Steel* 2013), and the spiritual realm as described by computer scientist and mathematician Alan Turing (*From the Unseen World* 2012). The first four works are soundscape compositions for eight digital soundtracks, while the fifth is for piano and six digital soundtracks. Each soundscape composition is context-based, where the referential aspects of found sounds refer to a space, real or imagined. Both *Chalice Well* and *Aeolian Voices* suggest physical movement through a hyper-real environment. *Chalice Well* traverses a series of cavernous chambers beneath the said resting place of the Holy Grail, Glastonbury Tor, a landmark of Glastonbury, England. *Aeolian Voices* moves from an outdoor rural setting to inside a shed and ends with a windstorm. In contrast, *Fire Spirits* and *Earth and Steel* remain fixed to a particular location, a fiery underworld and a dockyard respectively. With a relatively stationary position, time plays a greater role. For instance, *Earth and Steel* begins in a historical soundscape, moves to an abstracted space of steel resonance, and concludes in a museum context.

The source material for *The Elements and Beyond* is drawn primarily from original recordings in the World Soundscape Project Database (WSP).² These include some of the water sounds in *Chalice Well*, the match strike in *Fire Spirits*, different wind-surface interactions in *Aeolian Voices*, and shipbuilders hammering steel in *Earth and Steel*. *From the Unseen World* is the exception to this use of environmental sounds; here, the six soundtracks are rendered from the six-note "Christopher" motive in the piano, played by Truax. Human presence is audible in several works (e.g., human voice in *Fire Spirits*, passing car in *Aeolian Voices*, steelwork in *Earth and Steel*); however, it is non-human sounds associated with the terrestrial elements that dominate these virtual soundscapes. For example, water sounds (whether identifiable or not) are present throughout *Chalice Well*, including the glass chamber, where convolution is used to create glass-like droplets that function like water. In *Earth and Steel*, the sound of a hammer striking the steel hull of a ship is abstracted such that the human action that produced it is unrecognizable.

With WSP recordings and a few others as his source material, Truax creates a series of sonic environments imbued with symbolism and myth. He employs his signature granulation along with convolu-

tion and other processing techniques in order to realize these spaces. Granulation is effectively employed in *The Elements and Beyond* as both a broadband sound (e.g., wind through trees in *Aeolian Voices*) and also as minute sound events (e.g., sporadic sparks in *Fire Spirits*). Convolution plays a new role in *The Elements and Beyond*. Where Truax has previously used convolution to incorporate space into sound design, starting with *Temple* (2002), this process of reducing noise in a given sound while bringing out its prominent frequencies is repeated multiple times with environmental sounds in *The Elements and Beyond*. The result, as Truax explains: "gives the sounds both a realistic quality (even though they are heavily processed), and an almost symbolic quality."³ This simultaneity of real-world phenomena and gentle abstraction colours the elements in a way that is not possible through standard processing techniques. Like myth, Truax's hybrid sounds lie somewhere between real-world experience and another dimension. The space between real and abstracted is illuminated when an unprocessed sound is heard next to a hybrid version of the same sound. This theme of superimposition carries over to the album design. On the cover is a waterfall with the Chalice Well in place of its pool, and on the disk itself is a black-and-white image of a steel ship (from

CORRECTION TO SOUNDSCAPE 13 (1)

P. 28, Anthony Magen's review "*Reflections on Ways of Listening, Figures of Thought: a Festschrift for R. Murray Schafer on the Occasion of His 80th Birthday*" should read (in the third column under Introductory Essay):

'translation by Norbert Ruebsaat' – not Reassert.

This revision, as well as other updates/corrections, are reflected in the web version.

the WSP Database) with a colour image of rock columns affixed to its hull.

Regarding soundscape composition's commitment to the real-world significance of prerecorded sounds, *The Elements and Beyond* invites audiences to make environmental and social associations and to connect what they hear to their own personal experiences. According to Truax:

The intent for me is to provoke a reflective listening...which gives you time and space to not just listen inside the sound, but also to relate it to your own experience. Hence, I regard soundscape composition as a subset of what might be called context-based approaches, keeping in mind that these are not always physical, social, or cultural contexts. They could also be inner kinds of context, in the sense of memory and recall.⁴

In order to create environments that encourage reflective listening, the audience is invited into these works as observers. Although I felt like an active participant in each composition, especially when there was a shift in spatial depth or a sense of movement through space, there were rarely moments where I imagined myself making sounds.

At a time when many sonic artists are using found sounds to invite listeners to consider real-world environments and conditions, Barry Truax reminds us of the importance of taking time to listen inwardly. *The Elements and Beyond* exemplifies that technology can heighten our awareness of real-world environmental sounds at the same time as it transports us to places of meaning and myth. The four elements are simultaneously raw material and symbolic substance in *The Elements and Beyond*. The five compositions on the CD are studies in timbre, time, and texture as well as acoustic journeys into different environments. With attention to both the sonic properties and the external significance of source material, this album has the potential to enrich how listeners experience environmental sounds and acoustic spaces in daily life. With *The Elements and Beyond*, Truax does not merely sketch mythic locales, he invites us to experience them firsthand.

About the Author

TYLER KINNEAR is a PhD candidate in musicology at the University of British Columbia. His research focuses on contemporary sonic art, with particular interest in conceptualizations of nature, phonography, soundscape composition, modes of listening, and alternative performance spaces.

Endnotes

1. In preparation for this review, I interviewed Truax about *The Elements and Beyond* in the context of his 45 years working in soundscape composition. The full interview (unedited) is available on the World Soundscape Project Database. Email Truax at truax@sfu.edu for a guest password to the Database. All quotes in this review are from the interview. For more information on *The Elements and Beyond* visit <http://www.sfu.ca/~truax/cd10.html>.
2. In addition, *Chalice Well* uses prerecorded sounds provided by sonic artists Damián Keller and David Monacchi, as mentioned on Truax's webpage on the work. It is plausible that these water and glass sounds were used in Keller's "...soretes de punta" (1998) and Monacchi's *Stati d'Acqua* (2006).
3. Barry Truax, Skype interview by author, March 4, 2015.
4. Ibid. For a rich discussion of reflective listening, see Katharine Norman, "Real-World Music as Composed Listening," *Contemporary Music Review* 15, 1 (1996), 1–27.

PAST ISSUES OF SOUNDSCAPE AVAILABLE ONLINE

Adobe Acrobat PDF versions of
Soundscape: The Journal of Acoustic Ecology
are available for download at:

<http://wfae.proscenia.net/journal/index.html>

Memorial

REMEMBERING PETER GRANT

We have sadly learned that Peter Grant, 89, peacefully passed away in the early morning hours on December 11, 2014 with his son Sebastian and long-time partner Hildegard Westerkamp at his side. A celebration of life was held on Saturday, December 20th in Vancouver, B.C., where he had lived since he immigrated to Canada from England in 1957.

Peter was the WFAE's administrative backbone during its formative years. After attending the First International Conference on Acoustic Ecology in Banff, Alberta in 1993 when the WFAE was founded, he volunteered to undertake the dauntless task of managing the WFAE membership and contact database, Newsletter/Journal distribution, financial records and banking – all this during a time of technological change from typewriter to computer. He served as a WFAE volunteer from 1993 until he stepped down in 2000.

Prior to his involvement with the WFAE, Peter was actively involved in community radio, was a long-time volunteer and former staff member as Programming Coordinator of Vancouver Co-operative Radio during the 80's, as well as a board member of the Community Radio Education Society (CRES). After his death Co-op Radio established *The Peter Grant Memorial Fund for Music and Cultural Programming*. Those were his passions at the station. He was known for recording readings and live music performances in Vancouver so they could be played on the airwaves.

Peter was an amateur musician, playing the viola da gamba in small ensembles for many years and performed with the Arcadelt Consort in Vancouver.

He continued to be a concerned and actively engaged member of the WFAE who made significant contributions to the ongoing development of the organization. Our condolences to all whose lives he's touched with his gentle voice and kind spirit.

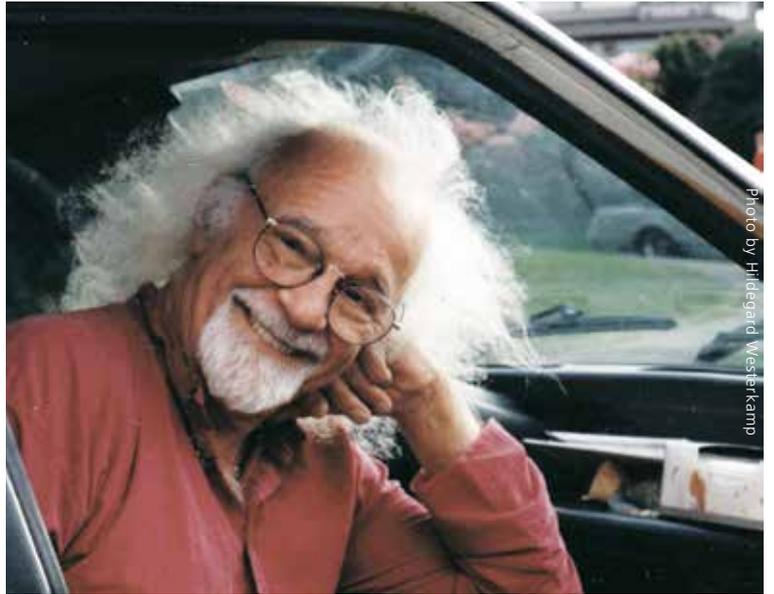


Photo by Hildegard Westerkamp



Photo by Gary Ferrington

Peter Grant and Hildegard Westerkamp, Vancouver, B.C., Canada, October 31, 2014

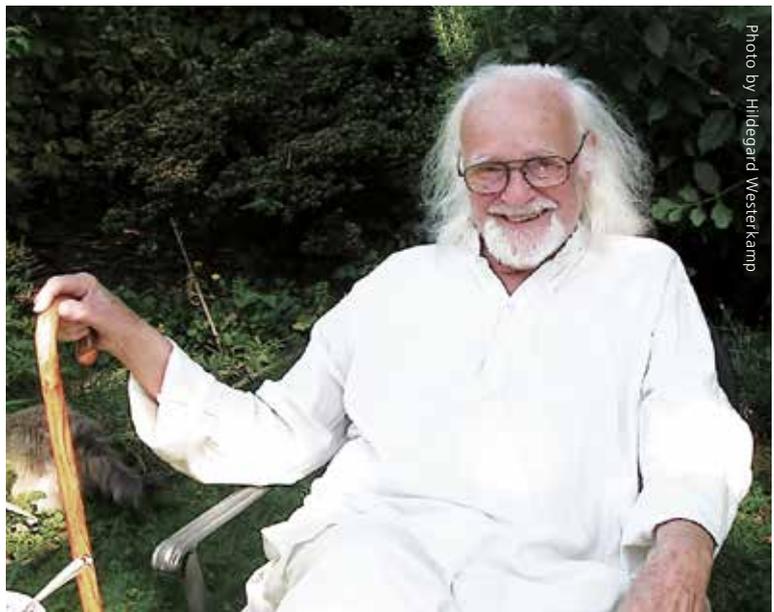


Photo by Hildegard Westerkamp

WORLD FORUM FOR ACOUSTIC ECOLOGY

Membership Information

Join or renew now! Please choose the appropriate Affiliate below.

As a member of an Affiliate Organization you will automatically become a member of the WFAE. If you are not near a convenient Affiliate Organization, or if you relocate frequently, you can join the WFAE directly as an Affiliated Individual. Financial members of the WFAE receive a subscription to *Soundscape—The Journal of Acoustic Ecology*. A membership form and a sample article from *Soundscape* are available for download in PDF format on the WFAE website: <http://www.wfae.net>.

DONATIONS ARE WELCOME!

Additional donations will be gratefully accepted (at the WFAE address or email below) and will be used toward the production costs for *Soundscape*, and to help subsidize those who cannot afford membership or who come from countries with disadvantageous exchange rates.

Australian Forum for Acoustic Ecology (AFAE)

Individual Fee: A\$40, Student: A\$25, Institutional: A\$95

Please send a cheque or money order in Australian funds to

(or email us for bank transfer details):

Australian Forum for Acoustic Ecology (AFAE) PO Box 268, Fairfield, Victoria 3078, Australia.

OR Sign up online using the PayPal link on our website

Email: contact-afae@wfae.net

See www.afea.org.au for more details

Canadian Association for Sound Ecology (CASE) / Association Canadienne pour l'Écologie Sonore (ACÉS)

Individual Fee: CAN \$40 — Student/Étudiant: CAN \$25

(with copy of your current student ID).

For information and forms, please visit the CASE Membership page at:

www.soundecology.ca/members. You can join in one of two ways:

- 1) Print and send the downloadable form and a cheque or money order in Canadian Funds to: Canadian Association for Sound Ecology (CASE) Association Canadienne pour l'écologie sonore (ACÉS) c/o Matthew Griffin 101 Rue Turgeon, Montreal, QC Canada, H4C 2M9 or
- 2) Via Paypal (online). *Please don't forget to email [treasurer@soundecology.ca] us the membership form!*

United Kingdom & Ireland Soundscape Community (UKISC)

For information contact:

John Levack Drever (Chair), j.drever@gold.ac.uk

UK and Ireland Soundscape Community

Email: contact-ukisc@wfae.net

Suomen Akustisen Ekologian Seura

(Finnish Society for Acoustic Ecology—FSAE)

Individual fee: €20 — Student fee: €15. Please pay to the bank account:

FI53 5711 1320 0183 25 Suomen Akustisen Ekologian Seura r.y.

c/o Heikki Uimonen, Musiikintutkimuksen laitos, 33014

Tampereen yliopisto, Suomi-Finland

Email: contact-fsae@wfae.net

American Society for Acoustic Ecology (ASAE)

Regular: \$50 — Artist/Student/Limited Income: \$30 (sliding scale)

For membership form, see: <http://acousticceology.us/membership>

Email: contact-asae@wfae.net

Japanese Association for Sound Ecology (JASE)

Individual fee: 2,000 ¥/year

The JASE fee should be paid with and in addition to the annual fee of 6,000 ¥ for the Soundscape Association of Japan (SAJ) by postal transfer.

Postal transfer number: 00110-6-612064

For information email: contact-jase@wfae.net

Hellenic Society for Acoustic Ecology (HSAE)

Room 304, Music Department, Ionian University Old Fortress Corfu 49100 Greece

Two Year Subscription: €15, IBAN: GR5901108970000089729600794

Information email: contact-hsae@wfae.net

Web Site: www.akouse.gr

WFAE Affiliated Individual Membership

Regular: US \$35, Student: US \$20 (with a copy of your current student ID)

WFAE Associate Membership

Regular: US \$75 – or as negotiated depending on size of organisation.

Please send US cheques, international money orders, or travellers cheques made out to the WFAE. Do not send drafts, as bank charges are very high!

Mail to: World Forum for Acoustic Ecology (WFAE) Membership

Secretary P.O. Box 268, Fairfield, Victoria, 3078, Australia

Email: membership@wfae.net

NON-MEMBER SUBSCRIPTIONS TO SOUNDSCAPE NOW AVAILABLE!

(Each subscription includes one issue per year including postage)

- | | |
|--|---------|
| • 1 year Library or Institution paper copy subscriptions | US \$50 |
| • 1 year Individual paper copy subscription | US \$25 |
| • Single copy back issue purchase | US \$25 |

Available from the WFAE address above.

