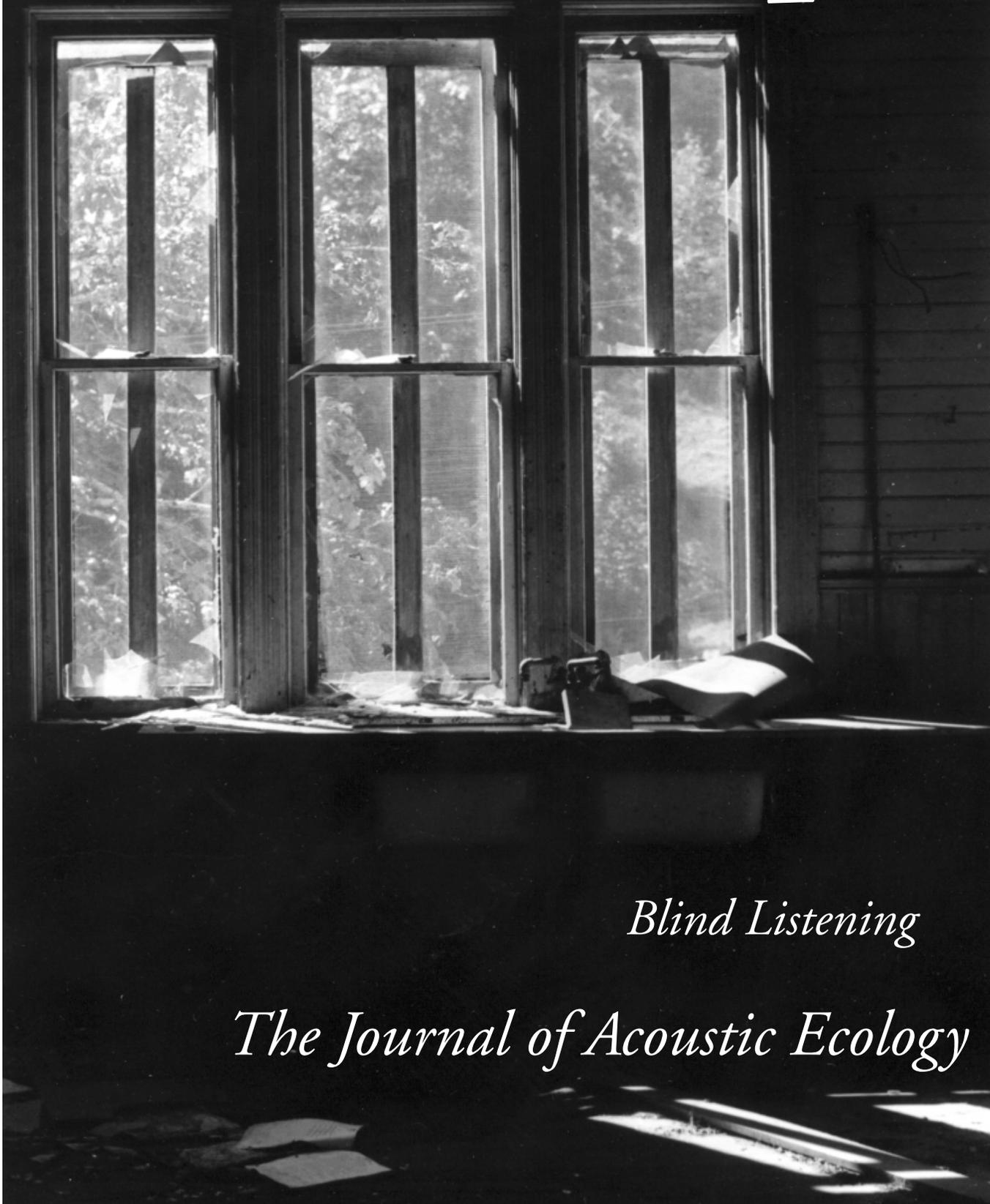


Soundscape

VOLUME 2, NUMBER 1, JULY 2001



Blind Listening

The Journal of Acoustic Ecology

WORLD FORUM FOR ACOUSTIC ECOLOGY (WFAE)

Soundscape

The Journal of Acoustic Ecology

VOLUME II, NUMBER 1, JULY 2001

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Soundscape is a biannual 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, focussing 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.

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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.

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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 before hand 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: <http://interact.uoregon.edu/MediaLit/wfae/journal/index.html>

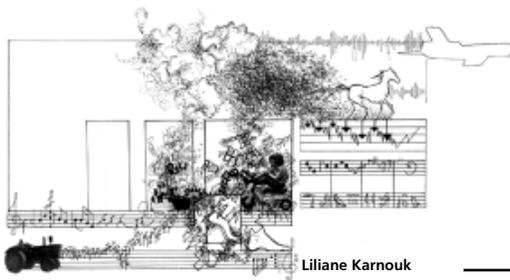
Up coming Issue: Soundscape Education. **Future themes:** Acoustic Ecology in the Age of Digital Networks and new Audio Technologies, The Ecology of Underwater Sound, Sacred Soundscapes, Sound Design, Economics and Acoustic Ecology.

Submissions. Please send articles, letters, and materials for the following sections in this journal:

Feature Articles; Current Research: a section devoted to a summary of current research within the field; **Dialogue:** an opportunity for editorial comment by the membership; **Sound Bites:** a summary of acoustic ecology issues found in the press; **Sound Journals:** personal reflections on listening to the soundscape; **Soundwalks** from around the world; **Reviews:** a section devoted to the review of books, CDs, videos, web sites, and other media addressing the theme of Acoustic Ecology (please send your CDs, tapes, books, etc.); **Reports, articles, essays, letters** from Students and/or Children; **Announcements** of Acoustic Ecology related events and opportunities; **Quotes:** sound and listening related quotations from literature, articles, correspondence, etc.; **Random Noise:** a section that explores creative solutions to noise problems.

Please send correspondence and submissions to: *Soundscape—The Journal of Acoustic Ecology* School of Communication, Simon Fraser University, Burnaby, B.C. V5A 1S6 Canada.

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Soundscape

The Journal of Acoustic Ecology

VOLUME II, NUMBER I, JULY 2001



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EDITORIAL

Welcome to the third issue of *Soundscape*. Our theme of blind listening is one that explores the many possible dimensions of aural perception beyond vision assisted hearing.

I recall the experience of “blind listening” from my childhood in a rural valley farming community. There were few automobiles on the narrow country roads and overhead flights were limited, as airline travel was only emerging as a post-war industry. My family, as with other families in the community, knew beyond sight the daily routines and activities of the near by farms and village. The unique sound of a particular tractor signified a neighbour’s plowing his field or another neighbour engaged in harvesting corn for silage. The school bell could be heard for miles calling students to class, or signaling to parents the end of the day. The excited nocturnal barking from a distant home meant a skunk or raccoon had disturbed the sleep of a family watchdog. Indeed, each distinct sound had a particular meaning in the daily routine of community life. The clarity of that soundscape now seems remarkably unique fifty years later.

Most of the world’s population now lives in increasingly homogenized urban environments. City dwellers look through sealed windows to an outside landscape accompanied by the background sound of an environmental air control system. Even those once transparent rural environments have become acoustically saturated with sounds from motorized farm machinery, auto traffic, unending overhead flights, and in the home the sound from TV, radio, computer, and other appliances.

When humans were hunter-gatherers, and later farmers, they lived in a world more aurally oriented than visual. The acoustic codes of the soundscape provided unambiguous information about events beyond the immediate visual context and one understood his/her place within the environment.

Our physiology has changed little over the past 50,000 years. Yet sight has increas-

ingly replaced hearing as the principle sense for information gathering and communication as humankind has become technologically sophisticated. The dominance of the oral/aural tradition ended with the implementation of the printing press, the re-presentation of the world through illustration, and the mass distribution of text.¹ We now daily consume thousands of manufactured images from film, TV, computer-based media, magazines, newspapers, and other sources. Seeing has become a way of validating the authenticity of the “real” world.² Hearing is secondary and is only given attention when it is needed to direct our visual sense.

We first hear while in the womb. Learning to see is a complex process developed in infancy. The brain must right what the optics of the eye present to it as an inverted image. What initially seems upside down and lacking focus slowly becomes the identifiable forms of mother, father, and sustenance. The infant masters a combination of visual and kinetic experiences to learn to navigate from one object to another. Objects have specific physical references within the visual space and as boundaries are established the child defines the world.

Without sight one’s sensory perception of space is that defined by hearing and touch. Blind listening returns us to our ears and the need to become attentive listeners and interpreters of the auditory scene. Sounds are seemingly detached from objects. Voices appear out of nowhere.³ Architectural space is defined by the acoustic dynamics one experiences. Crossing busy streets becomes a complex process of discrimination between the movement and spacing of sounds. Acoustic space is without boundaries in the visual sense. It is spherical, non-directional, all encompassing and wraps the listener with sound that exists in the moment with no past or future. The hearing of a sound is more the result of its intensity than a fixed location from which it originates.⁴

In, *Touching The Rock: An Experience of Blindness*, John Hull eloquently writes about discovering the acoustic wonder of

the garden outside his door after losing his sight. This excerpt illustrates well the use of the attentive ear, and the ability to articulate keen listening skills.

“... Rain has a way of bringing out the contours of everything; it throws a coloured blanket over previously invisible things; instead of an intermittent and thus fragmented world, the steadily falling rain creates continuity of acoustic experience.

I hear the rain pattering on the roof above me, dripping down the walls to my left and right, splashing from the drain pipe at ground level on my left, while further over to the left there is a lighter patch as the rain falls almost inaudibly upon a large leafy shrub. On the right, it is drumming with a deeper steadier sound, upon the lawn. I can even make out the contours of the lawn, which rises to the right in a little hill. The sound of the rain is different and shapes out the curvature for me. Still further to the right, I hear the rain sounding upon the fence which divides our property and the steps are marked out, right down to the garden gate. Here the rain is striking the concrete, here it is splashing into the shallow pools which have already formed. Here and there is a light cascade as it drips from step to step. The sound on the path is quite different from the sound of the rain drumming into the lawn on the right, and this is different again from the blanketed, heavy, sodden feel of the large bush on the left. Further out, the sounds are less detailed. I can hear the rain falling on the road, and the swish of the cars that pass up and down. I can hear the rushing of the water in the flooded gutter on the edge of the road. The whole scene is much more differentiated than I have been able to describe because everywhere are little breaks in the patterns, obstructions, projections, where some slight interruption or difference of texture or of echo gives an additional detail or dimension to the scene. Over the whole thing, like light falling upon a landscape, is the gentle background patter gathered up into one continuous murmur of rain.”⁵

In this issue John Hull continues his exploration of the soundscape in his delightful article, “Sound: An Enrichment or State.” A related article, “Acoustic Virtual Training for the Blind”, by Dean Inman, Ken Loge, and Arron Cram explores the use of virtual 3-D audio in the orientation and mobility training of the blind or visually impaired. In our third feature article “Shapes, Surfaces, and Interiors,” Don Ihde explores the paradigm of acute listening and what the sighted listener may learn from those individuals who have mastered attentive listening skills. This selection of articles should provide readers with a unique introduction into “blind listening.”

Gary Ferrington

For the Editorial Committee

1. Edmund Carpenter and Marshall McLuhan, *Explorations in Communication*, Boston: Beacon Press, 1960. p. 66.
2. *Ibid.*, p. 65.
3. John Hull, *Touching the Rock: An Experience of Blindness*, New York: Vintage Books, 1990. p. 54.
4. Tony Schwarz, *The Responsive Chord*, New York: Anchor Press, 1973. p. 48.
5. John Hull, *Touching the Rock: An Experience of Blindness*, New York: Vintage Books, 1990. pp. 30-31.

REPORT FROM THE CHAIR

The affiliated membership of the WFAE has seen plenty of activity since the last Journal. The new reports that follow bear witness to the variety and maturity of the events which have been organised and are in planning for the coming year. The FSAE has quickly established itself through a series of seminars and is now planning a major public soundscape programme. CASE is similarly involved at the community level. We are excited by continuing discussions with our friends and colleagues from the Soundscape Association Japan who are looking at restructuring to enable a more active international role within the WFAE. FKL has just held its AGM and emerges with a new executive while the AFAE is actively involved in plans for a major research centre and the International Symposium on Acoustic Ecology for 2002.

The *Sound Practice* conference in Devon, England provided an opportunity for various board members to meet face to face. More importantly it provided an opportunity for the WFAE membership to catch up with each other and present current work, research and other activities. It was interesting to note the attendance of a considerable number of new people from the UK, Europe and further abroad. The broad spectrum of topics discussed indicated yet again the eclectic nature of the field of acoustic ecology.

The welcome increase in UKISC membership reflects the importance of this kind of local activity and a strong interest in acoustic ecology in that part of the world. We congratulate John Drever, his small band of assistants, the UKISC and all participants on a successful and engaging event. The next major meeting place for the membership will be the symposium in Australia that is planned for July 2002.

The board has been relatively quiet over the past 6 months—however the coming months will create a balance. There are a number of important issues for us to work through including the formal signing of the WFAE Affiliation Agreement and a discussion on the critical issue of fundraising.

The draft version of the Affiliation Agreement has been worked up over the past year and has now been circulated to each of the Affiliated Organisations for discussion and ratification. This important document outlines the basic structure of the WFAE and the relationships and responsibilities of its member organisations. In addition to nominating a representative to the board each affiliate has representation on the finance and membership committees. The membership committee also assists with the distribution of this journal.

The positive feedback we have been receiving for the first two issues of *Soundscape*, our journal, is very welcome. The hard work of the editorial and membership/distribution committees is bearing fruit. There is no shortage of ideas and material for upcoming issues. The board is rethinking the entire financing and distribution strategy of the journal. It is necessary for us to be more active in exploring fundraising options for both the journal as well as general WFAE activities.

Nigel Frayne

Chair of the Board, WFAE

Regional Activity Reports

Australian Forum for Acoustic Ecology (AFAE)

by Nigel Frayne

The main activity within the AFAE has been at the membership level over the past six months, where a number of important and interesting projects are emerging. Our representatives with the WFAE executive continue to provide support and action on various committees and the board. Various of our members have been able to meet at functions and the *Sound Practiæ* conference in the United Kingdom earlier in the year.

One of the most exciting and promising projects in the field of acoustic ecology is currently being planned for Melbourne's RMIT University. A recent feasibility study into the creation of the *Capitol Soundscape Centre* (working title) has recommended that the University formally adopt the project and move into the next stage. Two of our members are heavily involved through their direct employment at RMIT University. Various other AFAE members have provided input into the planning process and will become involved in collaborative projects when the Centre becomes active. It is expected that the Centre will also provide research and commercial opportunities for WFAE members across the world. More detailed information about the Centre will be provided in future issues of *Soundscape*.

The AFAE continues to be active within the administration of the WFAE through its various committees and the board. The WFAE membership database has been established on a private web site to assist the WFAE affiliates to keep current information on membership numbers and store their contact details. John Campbell continues as chair of the WFAE membership committee and, with other AFAE members, assists with the printing and distribution of *Soundscape*. The AFAE also provides the current chair of the WFAE board.

The recent conference, *Sound Practice*, held in the UK, was attended by a number of AFAE members. Each gave presentations on recent work and were able to interact with a varied and interesting group of people from many other parts of the world. It was an excellent opportunity to meet some new people in the field and catch up with some old friends, some of whom first met at the WFAE conference in Banff eight years ago.

The next international event planned for the WFAE will be the Symposium in Australia in 2002. The symposium coordinating committee has been expanded to include representation from RMIT University and other interested parties. A preliminary programme and structure for the event will be announced shortly.

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Back Issues of Soundscape Now Available On Line

Adobe Acrobat PDF versions of *Soundscape* are now available for download at the URL below:

<http://interact.uoregon.edu/medialit/wfae/journal/index.html>

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

by Darren Copeland

The year 2001 brings a number of developments worth noting on the Canadian front.

The second Yearbook for Soundscape Studies will be published in late fall 2001 and will be called *Sonic Geography Imagined and Remembered*. The focus of interest will be the relationship between sound, imagination and memory as it relates to the cultural spaces we live in.

The book consists of a selection of papers from the conference *Sound Escape* that happened last year in Peterborough, Canada. This international set of papers comes from a variety of perspectives including sound design, radio, cultural studies, ethnomusicology, and composition. Copies will be available from Ellen Waterman, Cultural Studies Program, Trent University, Peterborough Ontario, Canada, K9J 7B8.

CASE is proud to be a co-sponsor of *Full Moon over Killaloe*, the 3rd Annual Audio Art Workshop with the Canadian Society for Independent Radio Production (CSIRP). CASE members Andra McCartney and Darren Copeland will lead the workshop with organizer Victoria Fenner. It is designed to facilitate creative exploration of recorded sound in a short intensive period between July 29 and August 4, 2001. At the time of publication, there are still a few spaces left to join the international group of participants who will undertake their audio explorations at a seduced camping site in the Ottawa Valley.

New Adventures in Sound Art's ongoing concert series *Sound Travels* will return to the Gibraltar Point Centre for the Arts on Toronto Island for September 1 and 2, 2001. Plans this year include continued collaboration with CASE in the development of another workshop conceived by CSIRP. The workshop *Deep Wireless* will run in conjunction with *Sound Travels* and will explore the relationship between noise activism and audio art composition as it pertains to community radio production and the particular noise concerns of residents on Toronto Island. Although, Toronto Island is celebrated for its hi-fi acoustic conditions due to it being vehicle-free, there are still a number of noise issues related to its position in Toronto Harbour. The September 1st weekend will occur at a particularly noisy time of the year as the CNE Air Show will be taking place. Thus the issue of noise will be a source of preoccupation throughout the weekend's public events and workshop activities.

The next annual general meeting for the Canadian Association for Sound Ecology is scheduled for November 11, 2001. Details about meeting time and place will be announced to the membership later this fall.

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Forum Klanglandschaft (FKL)

by Stefanie Zich and Justin Winkler

Forum Klanglandschaft General Assembly 2001 in Vienna

The 2001 general assembly, held in Vienna May 5-6, was organised by Prof. Dr. Desmond Mark and Mag. Gabriele Proy. The *Forum Klanglandschaft* elected Gabriele Proy as the new president. Justin Winkler remains on the board as treasurer and is responsible for international contacts. He also serves as the organisation's representative on the WFAE Board. Lorenz Schwarz (l.schwarz@rol3.com), remains the webmaster and administrator of the Forum. He is assisted by web editor Stefanie Zich (szich@brimail.de). Günter Olias continues as the treasurer for Germany, and Dina Schwarz is the newly appointed treasurer for Austria.

The Forum's homepage is increasingly important and is consulted 20 to 30 times a week. New members have been recruited because of our website. Online publications are popular. At the end of 2000 the German translation of Luigi Russolo's "Arte dei Rumori" (The Art of Noise) from 1916 was added to our article database.

The assembly had the opportunity to listen to presentations by Prof. Albert Mayr (Italy), Dipl.-Ing. Martin Grund (Germany). Music teacher Anke Haun (Germany) lead a tour through the Institute for Electroacoustic Music in Vienna. A concert of contemporary compositions "Klanglandschaften—Landschaftsklänge," was presented by Gabriele Proy. With the conclusion of the assembly participants enjoyed the "Heurigen." They agreed to make the next General Assembly part of a larger and more public program. SZ

1995-2000: the outgoing president looks back

The *Schweizerisches Forum für Klanglandschaft* was founded in Aarau (Switzerland) on September 4, 1995 by Beat Gugger, Urs Notari, Francis Schneider and Justin Winkler. A workshop by R. Murray Schafer was a highlight of the organization's first General Assembly in Langenthal (Switzerland) on February 10, 1996. It was at this meeting that the Assembly approved the establishment of the international association *Forum für Klanglandschaft*. I was elected president at that time and continued to serve until May 2001.

The General Assemblies have met in different locations over the years: at the Südwestfunk in Freiburg/Breisgau (Germany) in 1997; at the Centre for the Arts and Media Technology in Karlsruhe (Germany) in 1998; in Cembra (Italy) in 1999, and at the University of Hamburg (Germany) in 2000. At this last meeting the name of the association was changed to *Forum Klanglandschaft*.

In the fall of 1996 the Forum took over *in extremis* the production of the WFAE's newsletter. With Mirjam Jauslin as the new administrator a period of expansion started. Since her resignation due to professional work demands, it has been difficult to fill important positions. Lorenz Schwarz' development of the Forum's homepage has been helpful in delivering information about the organisation. From the start, the Forum followed a grass-roots philosophy, mirrored in the multilingual *New Soundscape Newsletter* and in its incorporation of French speaking Switzerland. More and more, however, it has developed into an organisation for the German speaking areas of four nations. JW

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Finnish Society for Acoustic Ecology (FSAE)

by Simo Alitalo

The FSAE held its annual general assembly on March 28 of this year. The consensus among the members was that the current board should continue for another year in order to get the society established and to enlarge its membership base.

The *Studia Generalia* lecture series that started last autumn was continued during this spring. The following lectures were given under the auspices of Abo Akademi in Turku:

- Jan. 21:** Producer Harri Huhtamäki (Finnish Broadcasting Co./YLE), "Prosthesis in the Cultures of Listening"
- Feb. 28:** Poet Markku Into, "Fontana Mix—Metaphors of Klangland."
- March 28:** Professor Tapani Jauhiainen (Helsinki University), "Effects of Environmental Noise."
- April 25:** Dr. Justin Winkler (University of Kassel), "Diving into the Sonic Lifeworld."
- May 9:** Sound artist Simo Alitalo, "What does one know through hearing?—The Acoustemology of Ears."
- May 30:** Professor Kimmo Lapinte (Technical University of Helsinki), "Urban Planning and Acoustic Ecology"

The lecture series will continue if the funding can be secured.

Last year the FSAE took initiative to establish a visiting professorship of Soundscape Studies at the University of Turku. As a first step towards realizing that plan the departments of Musicology and Geography invited Dr. Justin Winkler to Turku. During April Dr. Winkler taught a course on Phenomenology and Acoustic Ecology.

In its annual general assembly the FSAE outlined two projects that will keep the society busy for the coming year. During this year the FSAE is planning the project *Natura Sonica—100 Finnish Soundscapes*. We want to thank our Japanese colleagues, who have had a similar project in Japan, for inspiration. The goal of *Natura Sonica* is to locate one hundred unique and representative soundscapes in Finland and to find out ways of protecting them. We hope that *Natura Sonica* will: 1) increase the awareness of the public about cultural, social, aesthetic and historical meanings of soundscapes; 2) secure the existence of one hundred unique soundscapes for future generations; 3) gather a corpus of material for the use Soundscape Studies; 4) help to establish networks for the future protection of unique sound environments.

Natura Sonica - 100 Finnish Soundscapes will be realized as a nationwide "competition" of gathering aural tradition, where members of the public can make proposals about which soundscapes they think should be saved and/or write about their own sound memories and recollections. During this year the FSAE is applying for funds to start project planning and negotiations with possible partners. The FSAE will also establish "A Sound thing to do"-award. It will be given out annually for an act that has improved the quality of our sound environment and/or has advanced public awareness of the importance of balanced sonic lifeworlds. The purpose of the award is to draw the attention of the media towards issues concerning our everyday soundscape. We aim to give out the first award on February 20, 2002.

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The United Kingdom and Ireland Soundscape Community (UKISC)

by Gregg Wagstaff

From February 16-20, UKISC hosted *Sound Practice*—a multi-disciplinary conference on sound, culture and environments. It took place in the beautiful grounds and buildings of Dartington Hall and College of Art in Devon, where we were fortunately treated to an unusually early display of spring-like sunshine and scenery. A review of the conference can be found on page 32 of this edition of *Soundscape*.

So, I would like to take this opportunity to thank the 100 or so delegates that travelled from various parts of the globe, including Australia, Japan, Canada and Jordan. A special thanks to Pauline Oliveros and Hildegard Westerkamp for attending and giving their keynote lectures and concerts. It was good to meet and hear specialists from within the UK, John Hull and Michael Bull, amongst others. As well as paper presentations, there were performances, installations, and early morning listening exercises. We are grateful to Nancy Sinclair (of Aune Head Arts) for co-ordinating the soundwalks on Dartmoor and the local guides for providing their interpretation along the way. The moor is a unique place and it gave people the chance to escape, to breathe and of course to listen. On behalf of UKISC, I want to thank John Drever and Wing Man Natalie Kwok whose hard work and practically single-handed determination made the event possible.

Since the last *Soundscape* journal Kendall Wrightson has departed from the UKISC Management Committee due to other commitments (you may recall Kendall's *Introduction to Acoustic Ecology* in the first *Soundscape* Journal). His character and input in the group is missed. However, Kendall's heart (and ears) remain in the right place; he is still active in furthering listening and soundscape awareness to his students and is reviewing Barry Truax's 2nd Edition of *Acoustic Communication* for the next Journal.

We welcome Rahma Kazahm and Scott Hawkins to the Management Committee. Rahma has busily set to work co-ordinating the second *Earshot* publication that will focus on responses to the themes of the *Sound Practicæ* conference. *Earshot* will be distributed to the UKISC membership, which currently stands at around 45 members. Best wishes for whatever projects you are embarking upon.

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WFAE—Electronic Contact Information

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Home to an extensive collection of Acoustic Ecology related materials—sembled and maintained by Gary Ferrington.
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Gregg Wagstaff

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We invite your comments and criticism in response to anything you read in *Soundscape*, including other members' comments, such as those below. Please send your reactions to: jwfae@sfu.ca, or to the mailing address at the bottom of page 2.

Saying Yo Business

I was excited when I began reading Henrik Karlsson's article, "The Acoustic Environment as a Public Domain" in *Soundscape*, Vol. I, Number II, because I thought I might learn how Soundscape Theory can contribute to discussions of the public domain which are taking place in contemporary theory, philosophy and semiotics. I have been thinking for some time that concepts like acoustic space and acoustic community, which are the heart of Soundscape Theory, can render more porous the boundaries on thought and perception which visual ideas of space and community have imposed on theoretical and philosophical discussion about what the word public means.

I was disappointed, therefore, when I read Karlsson write that, "We are not yet competent to construct major systems and should thus beware of delving too deeply into ecosophy, semiotics and philosophy at the present stage of things." Is the author afraid of thinking? It seems to me that it is precisely by delving deeply—i.e. listening, which is the deepest form of thinking—into philosophy and semiotics (I'm not sure what ecosophy is) that Soundscape Theory and Practice can participate in discussions of what should be public and what should be private—and, more importantly, of how and where such discussions should take place.

Anne Carson, the Canadian philosopher and poet, writes that "Reality is a sound, you have to tune into it, not just keep yelling." She writes also that she is interested in "how people decide what sounds like a law." Ludwig Wittgenstein, the Austrian philosopher, writes that "certainty is a tone of voice," and Roland Barthes, the French Semiotician, has written that sound (or music) draws attention to—i.e. signifies—the spaces between things rather than the things themselves, and it is therefore, as a semiotic tool, more powerful and persuasive than are visual significations. Twentieth Century theorists and philosophers from Heidegger through Buber to Jürgen Habermas have sung praise to the truth of the acoustic and public, as opposed to the private and visible.

These voices and thoughts are worth listening to and speaking with. While I agree with Karlsson that we should "not start off with visionary theoretical models," I do think we should start off with auditory ones. We already have one and we have already started. I have heard no arguments which resonate strongly enough to persuade me to think that Soundscape Theory needs to be quiet and humble about its thoughts and theories. I think we should make a lot of noise (lets call it sacred) about listening, and that we should think out loud frequently and eloquently so that other disciplines and their disciples—not to mention politicians, artists, new agers, students, our children, the police—hear and tune into this art form.

Karlsson's "anthropocentric model," as presented in his article, is a visual, not an acoustic idea. It suggests that the individual, not the community is at the centre of the universe. The individual is an invention of sight, not sound. Light touches skin (and corporate documents and screens) but the ear hears a heart (when not distracted by computer hums). A truer anthropocentric model knows that communities not individuals create the world, because it hears that it is only by listening to and speaking with each other and to the places between us that we know things. Sound, because it resolutely resists the privatization of public space (including scientific space), is always in turn resisted by the corporatist choke hold.

The words common rights, and public domain mean something, so I gaily tell my Communication and Media Studies students, when common, public, not privately incorporated voices speak their meanings. Rights, be they to clean air, water, soil or to healthy soundscapes, are a tone of voice. "Say yo business," I heard Gospel singer Linda Tillery say to an audience of children at a festival last week.

Norbert Ruebsaat
Vancouver, B.C. Canada

Brasilia

Opening the last *Soundscape* issue, the first thing I saw was your story about Plano Pilato, Brasilia. Some 12 years ago I also ended up there during my travels in South America. It really was a strange experience! I didn't remember any of the place names, or even much of the city plan, but the descriptions of the sounds brought my impressions from there back to mind. Yes, it would have been absurd to do a *soundwalk* there for an hour! Of course, I remembered the atmosphere: the never ending concrete and passages, shopping malls, ventilation hum in the underground hotel room that isolated us from the outside world. The only place where people seemed to gather was in a moderately high building with different public spaces inside. Was it a library? I don't remember. It didn't seem to offer the conventional signs, though, that allow us to recognize a place as a *public* place, not even for the eye. Having arrived by bus from the crowded and lively Rio de Janeiro (after experiencing Mardi Gras there!), Brasilia really seemed like a violent attempt to organize the lives of the outgoing, lively Brazilians into rigid patterns.

Noora Vikman,
Tampere, Finland

Women and Silence

Thanks so much for the copy of the Journal—I look forward to future issues. I was amused by the Quotes column: no women, interestingly, since women know a thing or two about silence! But then, not so surprising—perhaps we observe it more....

Annea Lockwood
Crompond, NY, USA

Acoustic Environments in Change

An update on the six-villages research project and information on exhibitions and upcoming books

by Helmi Järviluoma

The first research phase of our Acoustic Environments in Change project (AEC) has been completed successfully—including an extensive field work period during Spring 2000 in the same five villages that were visited by the World Soundscape Project in 1975. During the term of 2000-2001 the four Finnish soundscape researchers from the universities of Turku and Tampere, five environmental/media art students from the Tampere School of Art and Media (TSAM) and other participants of the project have had their hands full of work. Two of the researchers—Noora Vikman and Heikki Uimonen—spent four months at Simon Fraser University in Vancouver, Canada, and were guided gently by Hildegard Westerkamp and Barry Truax. The third researcher, Tero Hyvärinen, was fortunate to get a job at the International Institute of Applied Aesthetics in Lahti, Finland. He immediately started to plan a Summer School session for August 2002 on the theme ‘Eyes Closed,’ which will be open to all post-graduates and others who are interested in the aesthetics of the senses.

Turku University was most fortunate to be able to welcome Justin Winkler as a visiting professor during Spring 2001. He was based both in the departments of Arts, Literature and Music as well as Geography. Apart from teaching a course on “Landscapes of the Senses” he paid a visit to the Finnish village Nauvo, the additional sixth village studied by AEC (see pg. 23 for his sound journal accounts of this visit). In June Nauvo was visited by another AEC researcher—Gregg Wagstaff from Scotland.

The art students have already had their first exhibition—in Tampere during November 2000—drawing from the AEC materials and their experiences. The next big exhibition of the whole project will be held in Turku from September 14, 2001: both, the results from the village research and the art work from the TSAM representatives, will be shown at the Sibelius Museum and Humanisticum House. After that, the exhibition will travel to the Lahti Institute of Art and Design. Needless to say, the exhibition should eventually also go to all six villages that were studied. This, however, is still a dream, since the existing funds of the project are running out and no new decisions on funding have been made yet. If the funding succeeds, one of the most important aims of the project is to continue the study with a multi-disciplinary research group, and to co-operate with people who will—at local and regional levels—deal with acoustic design questions in the six villages.

Professor Barry Truax has suggested that the forthcoming report of the AEC project might be published together with a reprint of the first report (ed. Schafer 1977), including a double CD with comparative sound examples from the two projects. This is a good idea and if funding for it becomes available, it would be published in 2002.

Those who missed our ‘real-time’ field reports during Spring

2000 can still read the news, hear the sounds, and see the pictures on the internet (best done with Microsoft Explorer). More than 60 news items were sent to the web by AEC researchers and TSAM art students alike, all of whom were responsible for sending these stories out regularly. (see <http://www.6villages.tpu.fi> for news ARCHIVES).

The head of the AEC project, Helmi Järviluoma, and project member, Gregg Wagstaff, have been editing a methodological text with the working title *Soundscape Studies and Methods*. It will be published in the late summer or early autumn of 2001. The main articles of the book were written by AEC members and by post-graduates working on the project.

For information about how to order the book, please contact Helmi Järviluoma at:
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Helmi Järviluoma is an ethnomusicologist and currently a Senior Research Fellow (The Academy of Finland) working at the University of Turku, Finland, Department of Arts, Literature and Music. She is an editor of the first Yearbook of Soundscape Studies, *Northern Soundscapes* (1998, co-editor R. Murray Schafer), and of the collection of essays called *Soundscapes: Essays on Vroom and Moo* (1994). She is the chairperson of the Finnish Society for Acoustic Ecology (FSAE).

Sound: An Enrichment or State

by John Hull

Lecture given at
Sound Practice—the first UKISC conference on
Sound, Culture and Environments
Dartington Hall, Dartington College of Arts, England.
February 17, 2001

Editor's Note: It is quite impossible to represent in print the intonation of John Hull's voice, the expressiveness, the silences, the different speech rhythms. His tone of voice draws our ears to his words, creates an extraordinary listening atmosphere in the room, adds another dimension of depth to the word meanings. His is not a "print speech"—he is not reading from or basing his talk on a pre-written text. He is a true orator in the aural sense of the word. He speaks from his whole being. So, how on earth is it possible to reproduce this spirit in print? It is not. In fact, I believe that the spirit in his voice is removed to a large extent by transcribing the text to print. But one could perhaps say that—to a certain degree—it is reincarnated in your's, the reader's inner voice while you are reading the written text below. HW

I'm thrilled to be here. Indeed, I'm not only thrilled I'm stunned because I normally live and work with sighted people who have no particular sensitivity towards sound because sighted people don't on the whole live in sound, they live in sight and the power of sight is such that it swamps their other senses. So they simply don't notice the sounds around them. And for me, as a blind person, to come into the midst of a group of sighted people who are so amazingly sensitive to sound as you are has been already quite a shock (laugh). So, I'm very glad to be here and I'm learning such a lot from the conversations I'm having.

I don't study sound, I live in sound.

I will try to explain that. But I must first preface my remarks by saying, I cannot speak for anybody but myself. You see, blind people are as different from each other as sighted people are. The reactions of blind people vary widely. And, I live in a sighted person's world. I do know blind people. It's a wonderful relief in fact to have blind friends who do share my world, but I am conscious of the fact that we are all very different. So I don't know whether my experience is idiosyncratic. I suspect that a good deal of my experience does correspond to the nature of the body and to the phenomenology of human experience which is common to us all. But I can't prove that.

When you enter a hotel room at night, I imagine the first thing you do is to switch on the lights. It would be very strange I think for a sighted person to go into a room, at night, and not, first of all, to switch the light on. Indeed, I hear my sighted friends panicking when they say, "where's the light switch?" For myself, these little knobs on the wall make no difference. Since I have no light sensation whatever—I can gaze at the sun without blinking—and therefore I am not only *in* darkness but I am *beyond* light and

darkness: in the sense light and darkness are antithetical—with-out one there cannot be the other—so my experience is not that of darkness. It is an experience of being in a world where the difference between light and darkness has become completely irrelevant. Indeed, I can hardly remember it because I have been without any light sensation at all now for approximately 17 or 18 years—having lost my sight 20 years ago.

When I enter a hotel room—whether it's night or day makes no difference to me because I can't tell the difference except by observing my stomach—the first thing I do is get out my little portable radio set, which I carry with me almost always. And the first object I come to, which might be a bed, it might be a cupboard, it might be the place where you put your cases, I lay my little radio down and I turn it on. That is my way of turning on the light. That sound is the blind person's equivalent to light. And I suggest that that cannot be the case with sighted people, for whom sound I imagine, must be an enrichment of light but not a substitute for it.

Of course, many musicians have attempted in sound to produce the equivalent of light. I think, for example, of John Tavener's wonderful piece of music, 'the Icon of Light', *phos*, when he magically represents the sound of a ray of light, travelling endlessly through space, until suddenly it splatters on an object and sprays out in a wonderful strange chord. So, although these are dramatic attempts to create analogies, I think they are no more than analogous.

Why is thunder like scratching? If you can understand that, you can understand what sound is to a blind person. You see, a blind person lives in an infinite space. Not entirely infinite because there is always something underneath your feet—if there's not you've a hell of a fright! [laughter]. I have once or twice fallen from things [laughter] and of course you don't know whether you're falling 2 or 3 feet or whether it's a 30 foot drop, you don't know. So, it is actually quite alarming [laughter]. But normally there is something beneath your feet, but that's all. There is *nothing* above you. The blind person has no ceiling on experience. That's why I love thunder. And that's why thunder is like scratching. Your skin is the perimeter of your body. Most of the time you are not aware of your skin. However, if you suddenly get itchy, then you're aware of your skin and the moment you touch your skin your body has a membrane. You are no longer a mind in space. You are an embodied mind, which has a membrane dividing it from the world. And that's what awareness of your skin does for you.

For me, thunder is a bit like that. I love thunder because it puts a ceiling on my world and prevents me from wandering in infinity, which is frightening and disorientating. When I lost my sight at first, I thought I would never again enjoy thunderstorms. Because of the lightning you see? As a sighted person the lightening was the dramatic thing and later came the thunder. But I discovered I was wrong. I've forgotten about the lightning. It doesn't

seem to matter that there isn't any lightning. Of course, I can still imagine it. But generally I try not to because I try not to live in a nostalgic world of visual memory. I try and live in the real world—the place where I *am*.

And therefore when thunder comes, I love it because suddenly there is something up there. You always have a blue sky up there, or in the case of England, generally a grey sky [laughter], but there's always something up there. Even at night, there's a roof—the stars. There's a horizon. There's a place where the land and the sky meet. Which means that your person, your body is located in a space which is made up by the ground, the horizon, the hills, whatever it is. To a blind person, none of this exists. There is no scenery. When you go blind scenery disappears. Of course, there are places you walk where it takes more effort because your feet are going uphill: that's the nearest you get to scenery. At least, so I thought, when first I went blind. Scenery goes, stars go, the heavens go, the roof goes. You are out there—a mind without a body just in space, very, very scary. Trees went. I thought I would never get over my grief at the loss of trees. Of course, suddenly trees would come back when I would walk into them [laughter].

Usually, when accompanied by a sighted person—people sometimes say to me, “oh John, you must be so trusting.”

I said, “trusting? Hell, I don't trust anybody.”

[laughter]

I always have my stick in one hand, if I'm on somebody's elbow on the other hand, because so often, you know, you're walking along—splat!—into a lamppost. [laughter]

“Oh, sorry John, forgot you were blind.”

[more laughter].

Forgot I was blind!

“Sorry John, forgot to tell you that tree was there.”

Ouch!

[more laughter]

However, those contacts with trees were in a way quite encouraging. I learnt to put my arms around trees—a slight strange, erotic posture which I didn't like to do too long in case people were watching me and thought I was creating some new kind of sardonic ritual [laughter]. However, I then discovered I was wrong. I had a wonderful experience which did not come all at once but came over years. You see, I'm a very slow learner, it took me years, years, before I realised that I was in a world of sound. Isn't that strange—why did it take so long?

Why did it take so long; because the shattering impact of the disorientation created by the loss of sight, is so primitive, requires such atavistic reconstruction, that it took me years to reassemble the basic schemata of my bodily life. But then I gradually discovered trees came back.

I found that in the winter—I live in Birmingham in the Midlands—in the winter the trees whistle, and they crack and the groan... In the spring they go all fluffy, with the little fresh leaves. In the summer they are like the ocean—rolling across like waves—wonderful! In the autumn they go tinkley. In the autumn they become useful, because as the leaves fall and the wind blows them along the road, it spells out the pattern of the road in front of me. I can follow the leaves. I can walk through the leaves. Of course, the leaves can also obscure my gutters and my pavements, if they're so thick and dense, which is a nuisance. But the wonderful thing is the *sound* of them, the way they go tinkley. I learnt that the trees change around the seasons. You can tell the seasons by listening to the leaves—although you'd certainly be working on a fairly slow timescale, if you had to tell the seasons by the sound of the trees [chuckle]. But it would be possible. And then I learnt, that this sound of the trees was infinitely fascinating, because I learnt how to listen to detail.

Let me now emphasize this as a basic principle: there is *nothing* a blind person can do, that a sighted person can't do. There are no amazing charisma, there is no fantastic memory. I think it is true, perhaps, that the brain reorganizes itself. It is true, perhaps, that certain primal bodily awarenesses—kinaesthesia, facial vision, maybe there is other primitive body knowledge which is subliminal in sighted people, and which becomes conscious again in blind people. But I am sure there are sighted people who are perfectly capable of rendering those primal bodily awarenesses into consciousness, through disciplined attention, making them liminal not subliminal. But for most sighted people who are asleep in their sighted world that is not the case.

And so I learnt to listen to the detail of the trees. On my walk home from my office, a walk that takes me exactly 20 minutes—because I can't go any faster, it would be dangerous, I can't go any slower, I would lose my way, so I just have to go at exactly the same pace, more or less—there's a place where I go through a little copse of trees. Maybe there's a dozen or less, I'm not sure. But I like now to pause as my path goes under these trees. I like to pause there and I sometimes stand under those trees, and I listen. Particularly in the summer. But it's also true in the autumn. In the spring it's not so easy because the fluffiness is too ubiquitous. The tinkling of the autumn is distinguishable, by its nature, the sound being prickly. It is possible to listen to the sounds rather than the sound. So in the autumn and the summer, when the sound of the trees is myriad, then I find it very beautiful to stand and listen.

Actually, what taught me to listen was not the leaves. My discovery of the trees, as I have said, took time. My first discovery of the beauty of sound was with the rain. ... And this opened up to me a world of beauty I had never imagined. You see, when I first lost my sight I was deeply conscious of aesthetic loss. There is of course a knowledge loss and a competence loss, and many other kinds of losses. But the loss of beauty was one which afflicted me quite seriously, and it was a grief. ... I've already mentioned the loss of the stars, the loss of the mountains. ... the loss of women—I mean that you couldn't stand on the street corner and watch the girls go by, you know. I guess to most men, and I'm a very ordinary man, I found that a loss, an impoverishment of life that I couldn't enjoy women's beauty. And of course, most of our experiences of beauty, you know, you imagine, shafts of light coming down through forests, and sunsets, and all that stuff.

The way I rediscovered beauty again was so slow.

I learnt to listen to the sound of the rain. I learnt this first I suppose, through depression. I experienced some times of prolonged and deep depression, when I made an important discovery: that there are feelings so deep that you can't feel them. And I can remember times when, in my study at home, I would become conscious that there was a storm going on. I would forget about my disorientated and vacated interior and would become aware of the wind, thundering upon the corner of the house, whistling through the eaves. And then I would become aware of the rain, splattering on the windowpane. I would stand up. I would press my nose hard against the window. And gradually it was as if the glass disappeared, because now my consciousness extended out from my nose pressed upon a panel of glass until it became unconscious, and I became aware that the sounds of the rain on the surrounding panels—it was one of those windows made up of those little panels with beading between them—that the sound on the different panels of glass was different. Each tiny panel gave a different sound. And as I concentrated now on this sound—I don't mean to say I tried to concentrate, I was too depressed for that—as the sounds of these panels of glass became noticeable, became impossible *not* to notice, then it was as if my conscious-

ness gradually spread out: first, the differentiation between the little panels of glass around my face, and then the wider sound of the panels of glass where the rain hit them on the edges of the windows, and beyond that, I realised I could hear the rain hitting the wall. It was different, where it hit the wall from where it hit the window. Where it hit the window it reverberated with little echoes. Where it hit the wall it was dull. But then I realised I could hear the water running down the wall. And now I became aware of a distant rushing sound—a spout from the corner of the house, and the water was gushing down it. Beyond that something else...yes..the rain was falling upon a large bush, I could detect it. And what was this between the bush and the spout?...Yes...there was a different sound where the rain was hitting the lawn, from where the rain was hitting the path. I listened more acutely... 'swish', 'swish' ...I could hear cars going past in the road.

The rain had turned the light on.

I listened yet more intently. Was it possible that I could make out the rain falling on the houses on the opposite side of the street? That I could not be sure of. But certainly, beyond all of those details of the immediate and the surrounding world, there was a distant roar of the rain falling upon the world, upon the city. And as I listened to this, I realized I was no longer listening, because the rain was not falling into my ears, it was falling into my heart.

I have discovered many things since becoming blind. Oh, these are things that many sensitive sighted people know already but I couldn't learn them until I became blind.

Most of us think that the senses are specialised because we are taught that we've got five senses. We learn that there are parts of the body corresponding to each of these senses; you smell with the nose, you hear with the ears, you taste with the mouth, you feel with your skin. But this is only partly true. I learnt that you don't actually listen with your ears. You couldn't listen *without* your ears, I grant that. Nevertheless, when you are really listening, you are not aware of your ears, let's put it like that. Your ears disappear. Just as when you are seeing. Don't you agree, as sighted people, you don't exactly see with your eyes. Because the eye is not conscious of seeing. You can't see your eye. You just live in the world of sight.

The sense does not become conscious of itself because it lives in the world of which it is conscious.

In the case of the ear, I learnt that you don't actually listen with your ears, you listen with your whole body. And the same is true of sight. There was a stage after I lost my sight, when I became aware of the fact that I'd become a primitive organism, in which the organ of sight was no longer distributed in the head but was distributed throughout the body. Like an amoeba, which has no special organ of sight, but which responds to its environment with the whole of its body. So it was with me. I began to say of myself, "I'm not blind. I'm a person with a generalized sense of sight. I'm a person in whom *perception* has become generalized

throughout the body." In that sense, I have become a kind of primitive organism. I suppose I was rather primitive to start with but I've now become conscious of becoming atavistic biologically, because then I learnt to see with the whole of my body. Blind people do see—it's just that they see with their skin. I should say that they *perceive*. Their perception becomes organic.

And the same I think is true of sound: the ability to hear becomes organic in the body as a whole. I don't know anything about the biology of this, I'm sure there are lots of people here that do—I suppose it's true that the sound must vibrate in your lungs and in your body and in your stomach in different ways. And so your whole body does respond to sound, not just your ears.

It's also a form of identification. The senses tend to establish a subject/object division. But when you *really* see, you are no longer conscious of seeing because you are absorbed in what you see. So it is when you hear, when you listen. You no longer are aware that you are listening, because you have become absorbed in what you are listening to and so the subject/object distinction disappears. In other words, you hear with your heart, because you become one with the sound. The sound is in you, is you. And blindness taught me that, and I was grateful for that.

I'm going to go back for a moment now to the disorientation of losing the visual, because I think that is one way of focusing attention upon the nature of the sound world. ...Let me talk about the human person. ...When I lost my sight I became painfully conscious of the fact that I had lost the human face. And here is a good example of the fact that touch and sight are incommensurable: People will sometimes say to me, "Do you want to feel my face?" well, whatever turns you on baby! [laughter] People sometimes say, "Would you like me to describe the scene?" and I say yes, you know, I mean I'm a friendly guy, if you want to describe the scene I'm interested in you and your feelings, I like to know

what it is that's apparent to you. So, I like that. But you see, I can stretch out my fingers and feel your closed eyelids, the ball of your eye. But the feel of the eye is nothing like eye contact, is it? It is incommensurable. That's why I don't approve of those projects where pictures, artistic works—paintings—are turned into tactile facsimiles, by introducing layers which are supposed to represent perspective. I do not agree with those, because it doesn't seem to me that there is any continuum between the tactile character of those representations and the paintings that they purport to represent. Now, somebody at breakfast was telling me of a thing where they produce an acoustic facsimile of a picture. Not an attempt to render the picture tactile through space but an attempt to create an acoustic image of a picture. Now that, *that* interests me because there, one is not attempting to create a literal analogue. One is creating, I suppose, a dialogue between the two senses which, I think, is more interesting.

Anyway, to come back to the face...



Gary Ferrington

The face no longer had an environment. Sometimes, when I got home in the evening Marian would say to me did you see 'so and so' today, and I would say yes. And then it would suddenly occur to me that I did not know whether I had spoken to my friend over the telephone or had been in my friend's presence, and I would search my memory. When you are asking yourself, 'when did I see you last', you probably carry a photograph as it were—a visual memory—in which you now perceive this person standing against the bookcase or outlined against this tree. The person appears against a background and you remember the whole visual constellation. But when there is no background, indeed when there's not even a voice, because don't forget clothing disappears—that's actually not as exciting as it sounds! [laughter]—and so individual differences disappear.

The whole body disappears. People don't have body any longer. People have voices. And I used to find it very disconcerting listening to voices, and not knowing, exactly, whether, when I traced that voice back to where it was coming from I encounter a human pair of lips—and the voice says "what are you doing, John"—or I trace the voice to its origin and there's a loudspeaker. Very eerie. And after all, what did it matter? It didn't matter whether it was a loudspeaker or a face. That disorientated me and bothered me.

And then I suppose, gradually, voices took on fresh character. Now here again, I must emphasize my basic thought—there's nothing a blind person can do that a sighted person can't do. I'm just reporting my own experience. I discovered that, at first, I was very conscious of not knowing what people looked like. And people would say to me, "do you wanna know what I look like," I'd say yes. Sometimes, when I'd interviewed a candidate, when the candidate had gone, I'd say to my sighted colleague, "what did he look like, what did she look like? Give me a visual run down." It worried me that I didn't know if a woman was pretty or not in the conventional way that we talk about pretty women. It worried me. But gradually that concern disappeared. And, for a while I passed through a period, where not only did the individual *case* disappear but the *category* disappeared. And when people would say to me, "do you want to know what I look like?" I would feel an urge to say, "what do you mean, look like?" What is this 'look like'. And I would then have to struggle to realize that there is something they call 'look like', which was very important to these people. Indeed, that they actually spent a lot of their time worrying about what they looked like. And, I had to struggle to realize this. And when that happened to me, I knew I was far, far away. I was really, actually in a different world. And there was a time when I was in-between these worlds. I knew I had lost the world of sight—it had gone irretrievably. I was conscious of these faces disappearing. But I didn't know that there was another world, a world not yet born, into which I was to be born, to be re-born.

Gradually voices came back to me. Gradually, all of the power of personality which is in the face, was transferred to the voice. I learnt to judge people by their voices. Not deliberately but, you know, you make do with what you've got. I learnt the person's ages, people's experiences. The voice is a fingerprint of sound, in which the history of the person is encoded, just as sighted people say it is in the face. It's the same in the voice. I learnt to transfer the erotic into the voice. And I learnt to respond to a woman and to a man by the intelligence, the articulation, the self-mockery, the fluency. All those qualities which are in the human voice. And then I got onto computers.

It was in March of 1993, that I got my first Kurtzweill Reader—the wonderful text to speech computers. It's like a small photocopying machine: you lay the book down, you press a button, out comes a voice and reads it to you. When I first discovered this I was overwhelmed. I couldn't get over it. For years I'd been listen-

ing to recorded books on cassette. And now I had something different. Every recorded cassette book has its own erotic character. Every human voice has its own distinct charisma. I found that here was a voice which did not breathe. Which did not cough, splutter, which did not turn up with a runny nose, which was never late, which did not apologize when it made mistakes, which was remorseless and tireless. I never found a reader who could tire me out. Reading a Ph.D. thesis I'd get them started at 9 o'clock and work in hourly shifts right around the clock 'til I'd done it. They'd start to cough and complain, and go hoarse, and want drinks of water. But now, *now*, I was confronted by 'the Eternal'—a voice stronger than me, greater than me—and I had a mad desire to control it. The first day I got it working I had the mad desire to grab some pornography and force it down its throat! [big laughter] The thing had a whisper as well as other voices, you see? [more laughter] I wanted to make it read in the voice of 'Whispering Wendy' and force it to read all this filth [laughter]. And then my heart full of compassion, I said, no I mustn't do that, no that would corrupt it. I'll make it read beautiful medieval mysticism, that will enlighten it and inform it. I grabbed old books off the shelf, books I hadn't read for fifteen years. Put them on just to read a page. I rang my wife up, I said, "darling, books are back." I shall never forget it.

And then of course, the Internet and the wonderful pleasure of inviting my tough female professor to send me an e-mail and having her read it out in the voice of 'Huge Harry'! And the change, the mental change, in reading in space, to reading in time! After all, sound is always in time. At first, I thought I'd become an adult illiterate. I was promoted to a Readership in my university and I guess I was the only illiterate Reader in the United Kingdom. Because although I was a Reader, I could neither read nor write. But then I found gradually that my mind shifted. And previously reading only in space through a printed text, I now found there was no difference between books and speech. It was just one huge universe of speech, that's all a book was—a voice talking. The whole world was turned into a world of speech and that was a wonderful thing. The fluidity of the speech, the way you couldn't stop it: you see, when I read books before, I would put rings around key words and underline things, cross reference them in the margin. But now, the way it kept coming at me, coming at me, I couldn't stop it. Of course, I could slow it down. I could make it read by the line, by the word, by the letter. But I could never still it. If I stilled it it disappeared. It stopped. And I grew to love that.

I grew to understand that mobility and movement had disappeared for me. I can illustrate that the way I did with a friend over breakfast this morning. You see, if you as a sighted person hold up a saucer, it actually changes shape as you rotate it in your hands, doesn't it. But to a blind person, saucers are always the same shape. Nothing changes shape. We live in an immobile world, a world of things which don't change, whatever way we touch them they are always the same. But now, through sound which is always in motion, then movement and mobility came back.

The title I had suggested for this talk was something like, 'Sound: An Enrichment or a State?'

I do believe that the blind person lives in a very distinct world. Whether sound itself is a state, I'm not so sure. ... But I am sure that *blindness* is a state, it is a world. Because, basically, we know with our bodies. We think we know with our minds but we don't. The greatest epistemic fact about us human beings, is that we know with our bodies. Our knowledge is a projection from the bodies within which we live. Sighted people live in a sighted world. Sighted people know of course that they are sighted, and give thanks perhaps for their sight, and regard blind people as being excluded from the world of sight. But very few sighted people

know that what they are living in is a world which is epistemically generated by their sense of sight: that sight is creating the knowledge world within which they live. Generally, sighted people don't know that. Similarly, they don't know, generally speaking, that there are other human worlds. And because they don't know that, they produce an unconscious domination—a hegemony of the sighted world—in which all other human states are simply regarded as exclusions.

What blindness has taught me is that there are many human worlds. There is continuity between these worlds—when you are holding the one you love in the dark, it doesn't matter that you can't see. Nevertheless, these worlds are sufficiently discontinuous to describe them as 'worlds'. And so, to be blind is to live in a *world*. It is an intact world, an autonomous world. It is not a world in which there is emotional deficiency. You must not think of the blind person as a six-cylinder car running on 5 cylinders. You must think of the blind person as a small car. I change the metaphor: you mustn't think of a blind person as a cake with a slice cut out. Rather, the blind person is a small cake. The personality regroups, the wounds heal, one reassembles around a new kin-aesthesia, in which the world of sight, and of touch, and of smell are once again integrated in the most beautiful and deeply satisfying way. Of course, one would prefer to see. There are moments when one has a pang. There are moments when I go to watch my boys play football on a Saturday morning and somebody shouts out, "Goal!" and I say, "Who was that?" and the person says, "Oh, it's that young fella Hull," then I experience a pang—I wish I could have seen that. But generally speaking, I do not go around the place mouming over my loss of sight because I live in a new, a different world.

My wife—who has helped me wonderfully to work my way through this and is a sighted person—once put it so beautifully and poignantly to me, I have never forgotten it. She said, one day when we were discussing this abyss between sighted and blind people, she said to me, "you see my darling, the problem is not that you are blind, but that I have become invisible." With that sentence she turned the tables. My world was established as normal. She was the one that was excluded.

And yet through sound, we sighted and blind people are united. So, perhaps we could say that sound is symbolic of a corridor which links our two worlds. If that is so, we can expand our humanity through exploring sound and through exploring the different worlds of human-ness, within which these sounds dwell.

Thank you very much for listening. I hope there's some comment for a few minutes of reaction [applause, applause, applause].

Is there time for a quick comment?

Pauline Oliveros: How about the world of the deaf?

Well, you know, as I said, there are many human worlds. And the world of the deaf is another entirely different world. You know the works of Oliver Sachs? I'm sure you do. He specializes in the minute description of human worlds. And he has a wonderful book called, 'Seeing Voices—a journey into the world of the deaf', which is the best book I know on that question. And of course, the world of those who are both deaf and blind, which is as different from the world I live in, as is the world you live in from the one I live in. I can't imagine to be both deaf and blind: the most exciting thing that happens all day is that you have a pimple on your nose. Amazing. So, yes, thank you for the question. And my comment is that there are many human worlds. To enter these alternate human worlds requires tremendous empathy and discipline, because we so easily take our own worlds for granted. Another one?

Hildegard Westerkamp: I have very much enjoyed the expressiveness of your voice whilst speaking...

Thank you.

[HW] And I was wondering whether you can describe the transition that you must have experienced between speaking publicly with print and what I would call learning to speak freely.

Yes. Yes, that's a very shrewd question. At first that used to cause me such anxiety. And I tried everything. I tried Braille notes but my Braille wasn't good enough. I tried keeping a summary on cassette recordings. I would make a summary on a tiny little cassette, hand-held cassette. One time I was doing a lecture tour of the United States, I was down in Houston, Texas. I was speaking to a group of teachers about 300 hundred of them in this huge auditorium. And I had perhaps a number of points to make, and at that moment I forgot my next point. That was in the days when I cared about such things [laughter]. I said to my audience, "Oh excuse me, I can't remember my next point, I'll just have to remind myself what it was." I held my tape recorder to my ear and pressed the 'go' button. The whole place was sunk in total silence [laughter]. I'm not exaggerating, you really could have heard a pin drop. To my horror, nothing came out [laughter]. I'd got it set wrong, or...you know, there was nothing. However, at that moment I remembered the point [laughter]. So, I put the cassette away on the table and continued my lecture. After the lecture three American ladies came up to me, they said "Professor Hull, your hearing must be absolutely wonderful. We were sitting in the front row and..." [big belly laughs from audience predicting punch line!] "...we couldn't hear a thing" [more laughter] "...but you obviously picked up your notes." I said, "Well thank you madam, you know, we blind people have remarkable..." [more big laughter] I'll tell you how it happened. So often these little changes in life happen through something that somebody says to you. That's another stunning thing about sound—our lives are punctuated by the occasional remarks that people make to us, isn't that true?

One day I was at a lecture down in Kent, in Canterbury—big international conference—I was dead worried about my speech. I was sitting in my room, going through my notes again and again on my tape recorder, and an old friend came to walk me to the lecture theatre. As I was leaving I picked up the tape recorder to take it with me. She said, "What do you want that for John?" I said, "Oh, Lynda that's got my notes. What'll I do if I forget them?" She said, "Put that thing down John!" She said, "Sock it to them in the power of The Holy Ghost!" [laughter] And ever since then, I've done just that!

Scott Hawkins: Can you just make a comment on technology and your relationship with that?

Yes, thank you. I did comment about my experience of synthetic speech. All over the place today, I meet blind people who say to me, technology has completely changed my life. There is no doubt that the technology is absolutely wonderful. I must take the occasion of your question to refer to AbilityNet. It is the largest organisation in the UK, possibly the largest in the world, which specializes in the provision of adaptive technology for disabled people. I'm one of the founding directors of AbilityNet. We started in 1992 with 6 members of staff. Today we have 54 members of staff. We have locations all over the United Kingdom and this is a wonderful organisation which changes people lives. We run a free telephone line of advice. You can get it by just inquiring about AbilityNet.

For myself, I do almost all my work on computer. Behind my keyboard there are two small speakers. There is a monitoring screen, it's about 6 feet away to the right. As a matter of fact, I'll tell you something funny. The other day, the monitoring screen wasn't turned on. And when one of my support staff came into the room, he said, "Oh John, your screen's not on." And I said, "Oh, so what Lee?" [laughter] Then I said to him, "Lee, you think I'm taking sneaky little sideways glances at that don't you?" [laughter] And we both roared with laughter. He said, "Well, it's so hard to kind of realize that everything you have comes out of those speakers," but that is right. My software is equipped with a program which suppresses the pictures so I don't have to wait for them to unroll. If it's a picture it says "image". If it's a pornographic site, it says, "image, image, image, image!" [laughter] So, I quickly turn it off and switch over to something more helpful like Greenpeace [laughter]. So that's how it works. I do all my own e-mail. You see, e-mail has restored me to literacy. Before, if you wrote me a letter in print, I had to get my secretary to read it to me, I dictate a reply, she comes back and reads it to me to check that it's right, and I sign it, she makes out an envelope, I mean all of that crap. Today, you see, I go into my office at 8 o'clock every morning. I open up my e-mails, I answer them then and there—nothing for her to do. So technology is absolutely life changing for blind people.

Floris van Manen: John, you described yourself as being a smaller cake, why?

Because, that's just my picturesque way, Floris, of pointing out that we must not adopt a deficiency concept of disability. Many people think of disability in terms of deficiency: the main thing about a blind person is that a blind person can't see.

FvM: But aren't you advancing it in a favourite position?

Oh, I see you are talking about the smallness.

FvM: Well, a lot of people 'dress up', you know, to pretend they look different than they are. Whereas I can tell from the first sound that I hear from people who is in front of me. Well, the good thing is that people who focus on vision, forget about that feature, so they might dress up completely differently than who they are. You don't have that disadvantage I would say...

Well, you raise very interesting points...

[FvM] Of course!... [laughter]

Is it possible to deceive a blind person through disguising your voice? Of course, voice recognition takes time, visual recognition is instant. I often tell the people I work with, imagine you are always talking with me on the phone. There are 200 people in my building. Somebody passes me on the stairs and says, "Good morning," or "Good Morning John," and I say "Hi". Then they stop and say, "do you know who I am?" And I say, "no, you didn't tell me, who are you?" And they say, "surely you know my voice?" I have to say, "I'm afraid your voice has made absolutely no impact upon me" [big laughter]. People get slightly offended if you don't instantly recognise their voice. But to say, "Morning John," is not enough of a sample. Even if it's someone you see every day. At least that's what I find. Maybe I'm just not any good at it. I find I do need time to recognise voices and getting to know new people is very difficult.

[FvM] That's what I mean.

I used the expression 'small' because I think it is true that the world in which a blind person lives is small. Because, you see, we blind people live with tiny details. If I lose my way it's almost impossible for a sighted person to redirect me. Because I want to know where that little chink is out of the foot path, just about 6 feet from the corner. Because that's my marker. Sighted people don't notice those little details. They say, where are you trying to get to. I say, well, I'm going to such-'n'-such a place. Oh, well it's down that way. Well, what does that mean? You see, the demonstratives disappear. The very language changes, because the demonstrative pronouns disappear. So it's very hard for the sighted person to really orientate a blind person. It was for things like that I used the expression 'small'. But, of course, these things are all relative and it's possible for a sighted person to live a very small life, and a blind person to live a very large life. That I think is true.

John Drever: Do you want to quickly say something about your new publication?

Ah, yeah! You bet. Oh, there's a man I like to work with [laughter]! This is not so much exactly about sound. When I lost my sight, I lost not only the human face but the printed page. And when I began to read the Bible, I was shocked, because I discovered the Bible was written by sighted people. Such an obvious thought but it had never occurred to me. I discovered the entire imagery of the thing was based upon the sighted world. Light was truth and God, and Darkness was sin and unbelief. And it was like that pretty well from beginning to end. And this made me feel deeply alienated. About 3 years ago I sat down and listened to the entire Bible from beginning to end, including the Apocrypha, and out of that I wrote a book about the Bible in which I interpreted the whole text from the blind point of view. As far as I know, it's the first time anybody has written a blind hermeneutic of any classical text, certainly of the Bible. The book is called "In the Beginning there was Darkness." (for further details please see p. 34). [Final applause]

An Australian by origin, **John M. Hull** has been Professor of Religious Education in the University of Birmingham, since 1989. He was Editor of the British Journal of Religious Education for 25 years, is President of the National Christian Education Council, and is joint founder and General Secretary of the International Seminar on Religious Education and Values. In 1992 he was granted the William Rainey Harper Award of the Religious Education Association of the USA and Canada for his services to Religious Education, and in 1995 was granted the honorary D.Theol. degree by the University of Frankfurt. His most recent publications are *On Sight and Insight: a Journey into the World of Blindness* (One World Books, Oxford reprinted 2001) and *Utopian Whispers: Moral, Religious and Spiritual Values in Schools* (RMEP, London 1998), and his new book *In The Beginning There was Darkness* published by SCM Press 2001. A practising member of the Church of England, he is also an Elder in the United Reformed Church. He is married to Marilyn and they have five children aged 12 to 27. E-mail: J.M.Hull@bham.ac.uk

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Shapes, Surfaces, and Interiors

by Don Ihde

This text is an excerpt from: Don Ihde Listening and Voice: A Phenomenology of Sound, Ohio University Press, Athens Ohio, 1976 pp. 67-71. It is reprinted here with permission from the author.

Unaccustomed as we are to the language of hearing shapes and surfaces, we may remain unaware of the full possibilities of listening. But the paradigm of acute listening given in the auditory abilities of the blind man often provides clues for subtle possibilities of the ordinarily sighted listener as well. The blind man through his cane embodies his experience through a feeling and a hearing of the world. As Merleau-Ponty has pointed out, he *feels* the walk at the end of his cane. The grass and the sidewalk reveal their surfaces and textures to him *at the end of the cane*. At the same time his tapping which strikes those surfaces gives him an auditory *surface-aspect*. The concrete sidewalk sounds differently than the boardwalk, and in his hearing he knows he has reached such and such a place on his familiar journey.

To be sure, the surfaces heard by the blind man or the ordinary listener are restricted surfaces. They lack the *expanse* which vision with its secret “Cartesian” prejudice for “extension” presents, because the auditory surface is the revelation of an often small region rather than the spreading forth of a vista. But within its narrowness a surface is heard.

But striking a surface and thereby getting a duet of the surface aspect of two things is not the only way in which the mute object is given voice, nor is it the only way in which sound reveals surfaces. For the blind man’s tapping also gives an often slight but nevertheless detectable voice to things in an *echo*. *With the experience of echo, auditory space is opened up*. With echo the sense of distance as well as surface is present. And again surface significations anticipate the hearing of interiors. Nor, in the phenomena of echo, is the lurking temporality of sound far away. The space of sound is “in” its timefulness.

The depth of the well reveals its auditory distance to me as I call into its mouth. And the mountains and canyons reveal their distances to me auditorily as my voice re-sounds in the time which belongs so essentially to all auditory spatial significations. But these distances are still “poorer” than those of sight, though distances nonetheless. This relativity of “poverty” to “wealth” is apparent in the occasional *syncopation* of the visual and the auditory appearances of the thing. Such a common experience today may be located in the visual and auditory presentation of a high-flying jet airplane. When I hear the jet I may locate its direction quite accurately by its sound, but when I look I find no jet-plane. The sound of the jet trails behind its visual appearance and, by

now accustomed to this syncopation, I learn to follow the sound and then look ahead to find the visual presence of the jet.

But as I come to smaller distances the syncopation lessens, and the sight and sounds converge so that ordinarily the sight and sound of the things seem to synthesize in the same place. Yet with careful attention as I stand in the park and listen to the automobiles and trucks rush past, I find that even here there is a slight trailing effect. I close my eyes and follow the sound which, upon opening my eyes, I find only slightly trails the source as seen. Soon I can detect this trailing with my eyes open. Again in this distance the temporality of sound is implicated.

This often unpracticed and unnoticed form of human echolocation which is spatially significant may also be heightened. For the echo in giving voice to things returns to us with vague shapes and surfaces. The ancient theory of vision which conceived of a ray proceeding from the eye to the object and back again is more literally true for the sounding echo’s ability to give voice to shapes and surfaces. The blind man, who has learned and listened more acutely than we, produces this auditory “ray” with his clicking cane. Yet anyone who listens well may hear the same.

I repeat the experience of the blind man, carrying with me a clicking device. As I move from the bedroom to the hall a dramatic difference in sounding occurs, and soon, as I navigate blindfolded, I learn to hear the narrowing of the stairs and the approaching closeness of the wall. Like the blind man I learn to perceive auditorily the gross presences of things. But in the relative poverty of human auditory spatiality I miss the presence of the less gross things. I cannot hear the echo which returns from the open-backed Windsor chair, but I do discern the solid wall as a vague presence. Yet in the distance not too far from human experience, I know that the porpoise can auditorily detect the difference of size between two balls through his directed echo abilities, a difference which often escapes even the casual glance of a human.

I listen more intently still. The echo gives me an extremely vague surface presence. I strike it and its surface resounds more fully. Yet even in the weakness of the echo I begin to hear the surface aspects of things. I walk between the Earth Sciences building with its concrete walls along the narrow pathway bounded on the other side by the tall plywood walls fencing off the construction of the new Physics building. In the winter the frozen ground echos the click of my heels, and I soon know when I have entered the narrowness of the pathway. Once at the other end the sound “opens up” into the more distant echoing of the frozen ground which stretches to the parking lot. But as the day goes by and I listen, I soon learn that not only is there a surface presence, not only is there the “opening” and the “narrowing,” but there is also a distinctly different echo from the concrete wall and the ply-

wood fence. The surface-aspect only gradually becomes less vague in the sharpening of our listening abilities. In the echo and in the striking of the thing, I hear surfaces as existential possibilities of listening.

While there is no question here of exhausting even the relative and often vague “poverty” of shape and surface aspects, the march towards the “richness” within sound must continue. It is with a third spatial signification that this “richness” begins to appear, for, stronger than shapes and more distinct than surfaces, I *hear interiors*. Moreover, it is with the hearing of interiors that the possibilities of listening begin to open the way to those aspects which lie at the horizon of all visualist thinking, because with the hearing of interiors the auditory capacity of making present the *invisible* begins to stand out dramatically. To vision in its ordinary contexts and particularly within the confines of the vicinity of mute and opaque objects, things present themselves with their interiors *hidden*. To see the interior I may have to break up the thing, do violence to it. Yet even these ordinary things often reveal something of their interior being through sound.

A series of painted balls is placed before me. Their lacquer shines, but it conceals the nature of their interiors. I tap first this one, and its dull and unresounding noise reveals it to be of lead or some similar heavy and soft metal. I strike that one, and there is no mistaking the sound of its wooden interior. The third re-sounds almost like a bell, for its interior is steel or brass. In each case the auditory texture is more than a surface presentation - it is also a threshold to the interior.

I am asked to hang a picture in the living room. Knowing that its weight requires a solid backing, I thump the wall until the hollowness sounding behind the lathed plaster gives way to the thud which marks the location of the stringer into which I may drive my nail. What remained hidden from my eyes is revealed to my ears. The melon reveals its ripeness; the ice its thinness; the cup its half-full contents; the water reservoir, though enclosed, reveals exactly the level of the water inside in the sounding of interiors. Hearing interiors is part of the ordinary signification of sound presence and is ordinarily employed when one wishes to penetrate the invisible. But one may not pay specific attention to this signification as the *hearing* of interiors unless one turns to a listening “to the things themselves.”

In the movement from shape-aspects to surfaces to interiors there is a continuum of significations in which the “weakest” existential possibilities of auditory spatial significations emerge.

In all of this listening there is a learning. But that learning is like that of the blind man first being given sight; he does not at first know what he sees. Neither do we know what we hear, although in this case what is to be heard lies within the very familiarity with things in their present but often undiscovered richness. But once we learn to hear spatial significations, the endless ways in which we hear interiors comes to mind. We hear hollows and solids as the interior spatiality of things. We hear the *penetration* of sound into the very depths of things, and we hear again the wisdom of Heraclitus, “The hidden harmony is better than the obvious.”—Philip Wheelwright, *The Presocratics* (New York: Odyssey Press, 1966), p. 79.

Don Ihde is Distinguished Professor of Philosophy at the State University of New York-Stony Brook. He is the author of thirteen books to date and is currently working on a project which includes reflections on computer and electronic music, a continuation of his interest in auditory phenomena.

Ode To Light

Sound Sculpture for the Blind



Completed in 1968 *Ode to Light* was created by sculptor Arnold Haukeland and composer Arne Nordheim for the Storedal Centre for the Blind, south-east of Frederikstad, Norway, in Storedal near the Swedish border. It rises almost twenty meters above the flat, cultivated landscape and symbolizes limbs that

reach out towards the light. A multi-channel musical composition emanates from 28 loudspeakers integrated throughout the sculpture. The visual contrasts between black and glistening, reflective surfaces complement the sonic changes between dark and light sounds. These symbolize the struggle between light and dark, good and bad in human emotions. Its optimistic message is that “movement always occurs in one way: from darkness towards the light. This was a sculpture for both the seeing and for the blind.”

For its 25th anniversary celebration on August 12, 1995 all of the sound technology was replaced with modern digital means. Now the sound is controlled by a computer program which was created specifically for the hundreds of small music bytes originally composed by Arne Nordheim. It selects new sound bytes continuously, layers them with each other or organizes them sequentially one after another in such a way that there are no repetitions and the sound mixes are random. As a result the listener experiences a never ending “piece”. Original sound triggers were from photo-electric cells & relays. Measurements of the daylight, shade, or darkness are now sent to the computer continuously, which in turn uses this data to place limitations on the sound combinations. Simply said, more light will create more activity. Therefore, when it is dark, the sculpture is completely quiet.

Of the 28 loudspeakers 4 are located in large bass cabinets in the base of the sculpture. The other 24 are divided among the spire and the large halo. The program disperses the sound over all of these loudspeakers. Some sequences build themselves up from the top of the sculpture and progress downwards, some circle around the halo, others remain in the base, and so on. In this way one can hear the sculpture’s shape through sound and tone.

Also see:

<http://storedal.hiof.no/norsk/senteret/lydskulptur.html>
(For an interactive replica of the *Ode to Light* click on the blue link entitled in Norwegian: En rekonstruksjon av Lydskulpturen).

Text translated from the Norwegian and adapted by Harold Clark. Photograph by Pål Brugge.



Soundwalking

by Hildegard West



The following text is an excerpt from “Soundwalking,” an article originally published in the now out-of-print Sound Heritage, Volume III Number 4, Victoria, B.C. 1974, revised in 2001.

We hear about wind voices in old myths, in novels, in poetry, in fairytales and in horror stories, and we can listen to them in today’s films and radio plays.

Whenever wind touches an object it creates a sound—a sound which is unique for this specific acoustic event. Emily Carr perceived these subtleties very well, as we can read in her writings:

“The trees take the wind so differently. Some snatch at it as if glad of the opportunity to be noisy. Some squeak and groan, and some bow meekly with low murmurs. And there are tall, obstinate ones who scarcely give even a sulky budge.” (Emily Carr, *Hundreds and Thousands: The Journal of Emily Carr*, Toronto, 1966, p. 128)

And so did Thomas Hardy:

“To dwellers in a wood almost every species of tree has its voice as well as its feature. At the passing of a breeze the fir trees sob and moan no less distinctly than they rock; the holly whistles as it battles with itself; the ash hisses amid its quiverings; and beech rustles while its flat boughs rise and fall. And winter, which modifies the note of such trees as shed their leaves, does not destroy its individuality.” (Thomas Hardy, *Under the Greenwood Tree*, 1920, p. 3)

Listening to the Wind

Hildegard Westerkamp

Wind whistling through electric wires. Wind rustling through grass. Wind trapped between buildings. Wind howling, mourning, rustling, wailing, whining, screaming... And as we hear these voices they may be mocking us, they may sound frightening, or they may energize us, each time depending on the situation in which we hear them.

Go out and listen to as many sounds created by wind as possible. Listen for low-pitched and high-pitched ones, for those which continually change their pitch and also their loudness. What kinds of structures produce what kinds of sounds when touched by wind? What effects do the various kinds of sounds have on you?

If it is fascinating to listen to the acoustic interplay between wind and object it becomes even more exciting to listen to that between wind and other sounds. What happens to an existing sound when it is caught, thrown about and carried away by the wind?

Concentrate on one outstanding continuous sound (church bells, a motorboat, outdoor music etc.) and listen to the acoustic games the wind plays with it.

In the twentieth century we have developed extremely fast-moving vehicles and, as a by-product, have created a new type of wind. As we speed along a freeway we encounter a voice of the wind which has never been heard before.

Listen to this voice and compare it to all those voices of the wind you have heard so far. Is there a significant difference between them?

People have always listened to wind and have been fascinated by it. Because they know what kinds of sounds it can create they have invented and designed objects—like wind-chimes and wind-harps for example—that make the most beautiful music when they are touched by the wind.

Build an object with which the wind can play the most exciting acoustical games. Listen to the music it can make and observe other people's reaction to it. You may possibly have improved the quality of your acoustic environment.



Photography by Hildegard Westerkamp

Hildegard Westerkamp is a composer who lectures and writes on topics of listening, environmental sound, and acoustic ecology. She conducts soundscape workshops internationally.

Acoustic Virtual Training for the Blind

by Dean Inman, Ken Loge, and Aaron Cram

1. Orientation & Mobility Training

Individuals who are blind or visually impaired learn to rely on their sense of hearing to compensate for their lack of vision. Learning to “see” using the ears is difficult, and requires considerable time and experience. Fortunately, training programs for the blind, referred to as Orientation and Mobility (OM), have been widely implemented at educational institutions all over the world. In the USA, and many other countries, OM training is provided over the entire course of a student’s public school education. Professionals who provide OM training are known as Orientation and Mobility Training Specialists. OM skill training is defined as “the process of instructing individuals who are visually impaired to maximize the use of their remaining senses to move about freely within their environment” (Blash, Weiner, Welsh, 1997; LaGrow & Weessies, 1994).

The process of learning OM skills is involved, and sometimes dangerous. The unpredictability of motorized vehicles, pedestrians, bicycles, traffic patterns, and changing weather conditions that alter the acoustic qualities of navigable space can make the task of teaching the skills necessary to safely walk along a sidewalk problematic. Clearly, a blind student cannot safely walk alone until basic spatial awareness and navigation skills have been mastered.

Crucial to successful acquisition of OM skills is the individual’s ability to identify and localize acoustical events encountered in their immediate surroundings. To cross a street safely a blind individual must correctly interpret a number of acoustical features of the environment. For example, the student must identify how far away the street is, align their body properly to the crosswalk path, identify the physical traffic lane and intersection configuration they face, discriminate between the directional flow of traffic, the number of lanes to traverse, and the timing of start and stop traffic patterns. A deficiency in any one of these skills can be injurious. So great care, and numerous hours of training are required (Jacobson, 1993).

2. Virtual Acoustic Simulations

The value of simulation has long been recognized in education and training. It is well known that training complex sensory-motor skills can be done effectively and safely in computer simulation environments (Inman, Loge, Leavens, 1995, 1997). Computer generated three-dimensional (3-D) acoustic virtual training environments are an emerging technology that may be used to teach blind children to function in actual acoustic space (Inman, Loge, Cram, 2000). Immersive acoustic training environments make it easy to provide learners with repeated guided and unguided practice, and allow dynamic accentuation of specific auditory stimulus, while selectively diminishing background

“noise,” until the learner develops the necessary skills to know what to “listen for.” The computer can then be programmed to slowly change the perceived “figure to ground” ratio until the simulated situation matches the real world situation after which it is modeled. Other audio parameters, controlled by software, can also be adjusted to suit the specific needs of an individual’s auditory acuity or experience. The versatility and efficacy of a computer simulation to improve human performance, and especially virtual acoustic training, is unparalleled by any other currently existing technology.

3. Sound Localization and Synthetic Sound

In normal hearing humans both ears are used to localize a sound source. This is referred to as “binaural” listening. Sound localization refers to the individual’s ability to locate where in the space around them a sound appears to originate. Spatial hearing refers to the “perceived location, size, and environmental context of a sound source” (Blauert, 1983).

Synthetic three-dimensional audio environments have been a proven technology for nearly 20 years. NASA explored the efficacy of spatial audio technology when it created a 3-D virtual acoustic display to facilitate the management and use of inherently spatial tasks involving aircraft cockpits, air traffic control systems, sonar display telemetry, and other multiple-channel human-machine interfaces (Begault & Wenzel, 1990). An off-the-shelf 3-D spatial audio system, using technology adapted from the NASA research, is currently available, and has been used in prior simulation training studies conducted at the Oregon Research Institute Applied Computer Simulation Labs. With this system, a computer sound processing card simulates a real binaural hearing experience by digitally manipulating audio sources in real time through stereo headphones, in a manner consistent with the actual perceptual process naturally performed by the human hearing system (Inman, Loge, Cram, 2000).

With available over-the-counter technology, highly realistic synthetic spatial hearing is now possible. The remarkable technology which allows a 3-D acoustic simulation to be produced by the computer is modeled on the binaural human hearing system, which detects differences in the time required for a sound to arrive at one ear versus the other, as well as harmonic filtering which takes place as a function of the shape of the pinnae, the fleshy outer flaps of the ears. By making use of advanced digital signal processing circuitry, a computer recreates the perceptual effect of real spatial hearing, most effectively through headphones, and is thus able to accurately model actual acoustic spaces dynamically.

As a result of the development of 3-D audio processing hard-

ware in the late 1980s, and the more capable and affordable sound cards that followed, real time 3-D sound applications can now be developed using personal computers (Wenzel, 1991). Since the mid 1990s, the computer gaming industry has begun to embrace the virtues of computer generated 3-D sound. Immersive computer simulation technology is more affordable than it has ever been, and the costs of the computer hardware needed to model a 3-D sound environment after a relevant real-world situation have dropped dramatically, due to the success of the computer gaming industry, which is continuing to exploit immersive sound for game and entertainment titles. For \$20-\$200 dollars (US), depending on performance and fidelity requirements, a sound card capable of creating highly realistic 3-D auditory environments can be installed in most standard personal computers. These cards allow multiple sound source generators, such as automobiles, to move independently of one another, relative to a perceived spherical auditory radius from the listener's head, so the listener is truly surrounded by sounds that model actual acoustic space.

4. Acoustic Virtual Training

The system being used for virtual acoustic training at the Oregon Research Institute Applied Computer Simulation Labs (ORI ACSL) is based on off-the-shelf personal computer technology. The basic system consists of a Windows based computer equipped

virtually being in an actual acoustic space, such as a street intersection location, or a park, while wearing a standard pair of headphones.

After investigating the price and performance of various 3-D sound cards, and their respective hardware drivers, we decided to develop our acoustic training software around the capabilities of the Creative Labs SoundBlaster Live 3-D sound card, which is widely used, well supported, and affordable for public schools and institutions. By fine-tuning some of the 3-D audio Application Programming Interface (API) parameters, we have found the SoundBlaster Live hardware to provide very good spatial accuracy and performance for our OM training purposes, and we expect the fidelity to improve as the technology continues to mature.

The Oregon Research Institute ACSL began developing a series of auditory spatial training environments to facilitate traditional OM training in 1998. Our initial efforts focused on teaching blind students basic sound identification, localization, and tracking skills, but with a four-year grant, funded by the US Department of Education, we have been able to expand our training software to include Internet connectivity and networking. The Internet capabilities of the training system will help OM training specialists work with more students in rural locations, without having to travel to those remote sites as frequently. It will also allow a "central server" to automatically collect performance data

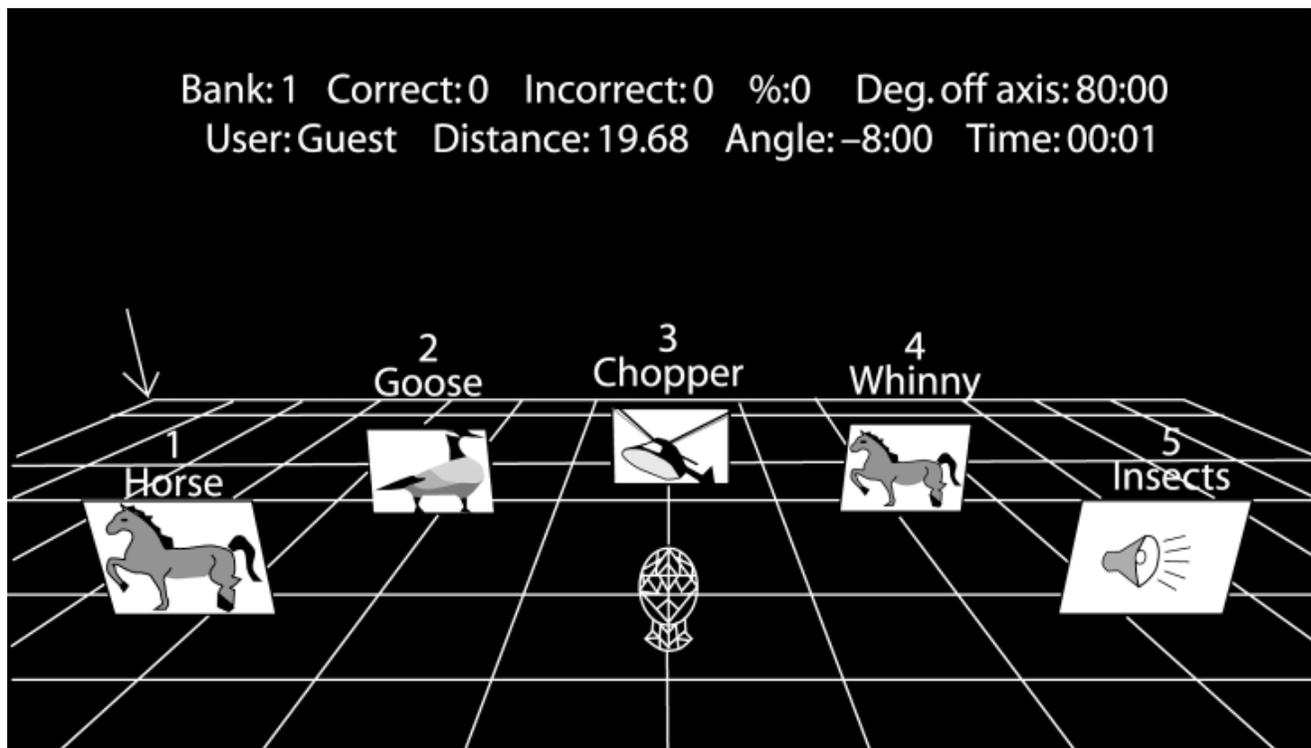


Figure 1: A screen shot from the virtual acoustic training software shows the orientation of the listener's head relative to other sounds presented in the environment. The 3-D environmental sounds can be moved, muted, or isolated with the software. As the student's head turns, the computer adjusts the perceived location of the environmental sounds in real-time.

with a 3-D sound card and a 3-D head-tracking device. The head-tracking unit is a thumb-sized box that easily attaches with Velcro to a small baseball cap worn on the student's head. The head tracker is equipped with tiny gyroscopes that send 3-D positional information to the computer describing the exact 3-D direction in which the blind student is looking. With this information the computer can be programmed to make any number of sound sources appear to emanate and move in any direction around the student's head. This allows the student to hear the sensation of

from each "networked" student, so the results of the acoustic virtual training activities can be assessed. The data collected may include any number of performance parameters, such as the position and orientation of the student's head, which may be compared to the position of a particular sound source in 3-D space. These, and other student performance data, can be measured and recorded accurately in real time. This may help assess the student's ability to accurately localize static and dynamic sound sources, as well as the student's response latency to sound cues.

With the tracking devices currently being used it is possible to accurately measure head movement in 3-D space to within fractions of a millimeter.

The virtual training applications being developed by the ORI ACSL are based upon a widely adopted OM training curriculum developed by the Texas School for the Blind and Visually Impaired called "Teaching Age-Appropriate Purposeful Skills," or TAPS. It focuses on OM activities that students need in order "to move safely and efficiently in home, school, work, and/or community settings as independently as possible" (Pogrund et al., 1995). The TAPS curriculum includes evaluation and assessment methods for functional mobility tasks such as locating specific rooms; auditory discrimination abilities such as tracking a moving sound; directional and positional conceptualization methods to teach, for example, the directional side of a street based on traffic noise patterns; and the development of travel skills in a residential area. Our acoustic virtual training programs are based on skills identified in the TAPS curriculum. We will also use the TAPS protocol to evaluate the effects of Acoustic Virtual Training (AVT) on student performance.

Acoustic virtual training delivered over the Internet will add new perceptual and interactive dimensions to distance education programs for blind and visually impaired students. AVT technology facilitates the creation of responsive environments that react, in real time, to decisions made by the learner. Emerging evidence indicates that students using computer simulation are more active participants in responsive environments in which they become engaged in full body-mind kinesthetic learning (Regian, Shebilske, & Monk, 1992). Such learning combines cognitive, affective, and psychomotor skills as the student pursues his or her own learning strategies (Inman, Loge, Cram, 1995, 1997, 2000; Lanier, 1992; Paton, 1995; Rheingold, 1991; Riva, 1998).

We believe OM training specialists will be able to use AVT environments to teach blind children important functional skills. AVT environments are (a) unlimited, in terms of the different types of training simulations that can be created for the learners, (b) safe, (c) cost-effective, and (d) they make it easy to provide learners with repeated guided and unguided practice. Internet training will allow OM training specialists to reach more children in less time, since they will not have to travel in order to provide at least some of their training activities.

Our current OM research, which utilizes the connectivity possibilities of the Internet, has three primary goals, which are intended to provide teachers of blind students with another arrow in their quiver. These goals include: (1) The development and implementation of training programs that enable blind children to learn important orientation and mobility skills over the Internet; (2) The development of an evaluation system, using multiple measures, that will determine the effectiveness of the training program. (3) Making the program available to teachers and OM training specialists by using the Internet.

We are looking forward to the continued development of acoustic virtual training environments for the blind. We have already seen how computer technology, coupled with a solid foundation of research in human performance and perception, can help lead the blind to faster orientation and mobility skill acquisition. We believe this type of training has the potential to revolutionize how some OM training may take place in the future, and possibly extend the ears of the blind and the sighted, into areas often considered "purely visual." We are investigating, for example, the use of AVT environments to describe difficult physics and mathematics concepts that are often elusive to both the teachers and students of the blind. Regardless of what future developments the AVT environments bring, it is clear that there's

more to education, and virtual training technology, than meets the eye.

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Ken Loge (kenl@ori.org) is a project manager and simulation designer at the ORI ACSL. Mr. Loge received an M.S. in Instructional Systems Technology from the University of Oregon in 1992, and is a part-time instructor and developer of multimedia programs. Mr. Loge likes to create electronic compositions and record sounds of all sorts.

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Sound Journals

Archipelago Listening Experiences in Finland

by Justin Winkler

As the guest of the Acoustic Environments in Change project (AEC) at Turku University in Finland, Justin Winkler visited the islands of Nauvo—one of the six European villages studied by the AEC project—and a neighbouring, much smaller island of Attu with just a dirt road, a couple of farms and, as everywhere else on these islands, many small summerhouses. During the days of his visit he wrote the following sound journal entries. (For updates on the AEC project please see p.9)

Attu Island: Friday to Wednesday, April 13—18, 2001

Into the Wind

Arriving at Attu, the most powerful element of the soundscape is wind. Despite the power the wind exerts on you—pulling and pushing you, ruffling your hair, chilling your blood, trying to put you to flight—its sound is somehow unobtrusive, and you have to listen carefully to really hear it. You stand still, the wind is hitting your ear. You alter the noise by turning your head and searching for a better position that avoids its characteristic dose-up rumble.

The wind is very cold. You cannot hear the cold. Your feet squeeze the moss softly and soundlessly, the dry fallen wood cracks powerfully. The wind whistles in the trees of the island: pines and leafless birches. There is a soft broadband noise on the far end of the audible here. You notice it best with the sound of a distant plane, with its low rumbling which is not contained in the surrounding soundscape. Your hearing can deceive you: when you are not attentive enough you can mistake the forest's sounds for a plane, or for a distant car, i.e. for other sounds with which you are familiar.

The impression of the wind's softness is also caused by the way in which its sound modulates in the tree tops. It increases and decreases in intensity as well as in timbre, creating a sensation of endlessly variable volumes and delicate changes in spatiality. Fields of sound appear and disappear in waves, fade in and fade out. Sometimes you have cause to anticipate a gale, but all of a sudden that ceases; at other times you expect the wind to decrease but it continues to increase in waves, here and there. It is difficult, if not impossible, to focus on one thing—sound, space, or time—the sound appears somewhere, with some intensity and a certain timbre, then it vanishes; it reappears somewhere else with a different intensity and different timbre.

Heavy wet snow is falling on Easter Sunday. It diminishes the perceivable reverberation and thus affects your feeling of spatiality. The studio-like dryness of the sound events outside of the house create a muted silence and feelings of isolation. Apart from the creaking of the snow under your soles the proximity is silenced. One is able to listen in a more undisturbed way to distant sounds.



Then a loud clank stands out, as the Mielisholm ferry lowers its iron ramp for the cars. It sounds alarming when you hear it for the first time. But gradually it becomes a familiar sound. A water bird's call comes from the field below or from the shore behind.

The wind's noise releases memories, recognition. I remember: all coniferous trees have this characteristically soft sound, like the low hiss of sublime mountain forests, but also the tamarisk's melancholic whisper under a desert's starred sky... In silent places you learn quickly to distinguish the sounds of wind in different trees: the acacia sounds are clearly different from the tamarisk, the poplar from the oak, the larch from the pine. I remember the noise of a small wind funnel in thin dry grass: I was listening to it from a rock some twenty meters above ground, listening how it arrived through the flat steppe, the movement of the grass blades indicating the sound source.

After a while this overall sound and time pattern sets the tonality of a place. Not indicating dangers or other essential information, but simply being there. And at will you can drop your attention, relaxing from listening to hearing, and back to listening to each moment. As the wind's sounds come and go your aural perception is coming and going.

After the wind

Tuesday evening it is almost calm. The silence is deafening, my ears ring when I leave the house, because they do not detect anything during the first seconds. No distant soft noise, no horizon, my acoustic space is collapsing. I hear my breathing, my intestines working. Very faint bird's voices, a very very faint bark from a dog somewhere far away. Only for the duration of these events does the dusky space around me come alive. The wet soil near me is making faint sounds, moved by its humidity. I hear my daughter talking endlessly in the wooden house.

On Wednesday morning, rain knocks softly on the roof. Some birds are conversing in lively song, a woodpecker is hammering against the top of an electricity pole, seemingly testing the different timbres of the materials. The wood sounds dry and a bit muffled compared to the metal cap on top of the pole or the metal

supports of the insulators, which sound differently in their different parts: from resounding loudly to producing a high pitched, dry sound. I listen with fascination how the animal explores the materials.

Nauvo: Saturday, April 14, 2001

Half past eleven in the Spar grocery store of Nauvo's village centre Kyrkbacken. A buzzing atmosphere, the freezers rumble, their doors bang, there are voices and children's cries. No background music. The caddies clatter, a telephone rings with a bell overlaid by a three-tone electronic tune, quickly ascending [g-a-c]. Fifteen minutes later we are at the church and cemetery, where cars can park. Strong cold wind. The passing cars have a soft rumble, the gravel rustles under our feet. One and a half year old Maks complains, a bird repeats his song ceaselessly. Around noon we are in the Boat House Restaurant. A hum from the bar, pop music from loudspeakers. My wife Johanna complains about it. The cash-register beeps and rattles when the ticket is printed. Wine glasses dink. More people enter, our attention shifts from the music to their conversations. Through the window I see the water shimmering-shivering soundlessly in the cold wind under bright sunshine. In the afternoon, shortly after two o'clock we walk from the restaurant to the church. The flagless ropes of the flagpoles are clanking in the gale. Two of six poles have been "silenced", the ropes wrapped around them. But a spring-hook bangs incessantly and the entire pole vibrates. The buggy's wheel creak on the gravel.

An electrical hum comes from somewhere, probably from the transformer box opposite the cemetery, as I realize later. A plane is passing in high altitude and I search for it with my eyes. A flight of crows circles around the church. Behind the church Helmi's cell phone rings and the whispers of a conversion start.

A ferry has arrived, cars flood onto the main road. It obscures the silence on Kyrkbacken for a while, which is composed of small sounds in a transparent acoustic space.

Over the granite cliff south of Kyrkbacken voices reverberate in the steep escarpment. We are sheltered from the wind and climb on the Northern granite ridge. From this summit we hear the afternoon soundscape: its relative quiet, punctuated by the high pitched voices of birds, dotted by incidental crow calls, deepened in space by the reverberations of a dog's barks, pulsated by the car processions towards Korppoo, the wind enveloping everything with its noise, making trees and dry grass audible. On the way back to the village a bass sound appears, at first very fuzzy, becoming more and more distinct as we walk on. I wonder where it originates, at first imagining an idling motor, but then it becomes clear that it is music playing somewhere, sounding from the red house. As we walk past the house, it turns out to come from a car radio.

When I write down my Nauvo sound impressions they are always mingled with sunshine and wind. There is no soundmark that stands out. This corresponds with the visual impression that you never get an overview of the situation, no panoramic view from above. Yet the moment of the arrival—getting out of the car in the cold air and noticing the birds's sounds—symbolizes the entire setting of our visit. Impossible anticipation: the relatively inhospitable time of the year and the pulse of the traffic created by the ferry's rhythms make me imagine how the island may sound and pulsate in summer.

Justin Winkler, geographer and musicologist, presently works as professor for landscape history and aesthetics at the Planning Department of Kassel University (Germany). Until recently he was the president of the Forum Klanglandschaft.

In Search of Quiet

Three brief texts about listening to pristine soundscapes
by E. H. Berger, M.S.

White Mountains, New Hampshire, November 1993

The morning was cool as we started our climb, just above freezing, the breeze slight, the mountain remote and devoid of people. Just past the trailhead we hiked along a small stream, stopping to listen to the water flowing over rocks, and moving through and beneath the encrusted ice. This gentle soothing sound was our companion until we veered from the stream and headed sharply up the slope in a few inches of snow.

We were in a soft, almost soundless winter snowscape now. Soon we stopped for a break and a—*listen*—a peaceful moment to use our ears to their fullest. I wanted to hear what you can't in a town, or near neighbours, airports or highways, or anywhere in the proximity of civilization. I listened to a pristine silence—punctuated by the barely audible and deliciously delicate crinkling of a nearly frozen brook, trickling just under the snow, by an occasional twittering from a bird, and the sporadic whispering of a breeze through fir and leafless birch. And then, *and not until then*, I noticed the view, and the fragrance of the crisp mountain air. What a breathtaking fusion of sound, sight and smell!

Saguaro National Monument, Arizona, January 1998

It was a leisurely walk, returning from a picnic lunch in the desert along the foothills of the Rincon Mountains, east of Tucson. I stopped to listen, 20 feet away from a huge saguaro cactus. I was entranced by its majesty and the cloudless blue sky. Standing in the warm bright sun I drank in the absolute stillness of the afternoon, and I felt at peace.

As I listened, a sporadic, barely perceptible zephyr arose out of the west, titillating my senses and capturing my attention. Gradually, and then with greater urgency, in just a few minutes, it developed into a 30-mph blustering buffeting gale, that kicked up a dust storm and blew through the desert and me. It departed, as suddenly as it had arrived, and the soundscape and landscape were as they had been. The same could not be said for me. Surely, that wind was the breath of God: I heard it, I felt it, and I was grateful and moved to tears.

Sonoran Desert, Baja California Sur, Mexico, January 2000

We rode a single-track trail through the warm Mexican sun. The others had opted out of this bicycle ride, so it was just me and my buddy. The trail wound through the desert, past the prickly cardon, cholla, and ocotillo cacti, sparse elephant trees, scrub, and sand. It was about 80 degrees, a sunny cloudless sky, no aircraft or audible traffic, no power lines or generating stations, or any of the noises of humanity, no streams or other sounds of water, no animals—just me, a good friend, cactus, a few trees, lots of sand, and absolute silence. Blessedly, my ears were tinnitus-free, and in this quiet I could listen deeply. I heard silence, a bird's call, its wings, a few insect fly bys, and a greater stretch of awesome silence. In the listening I felt an expanded sense of intimacy with myself. About thirty minutes later it was time to depart. With tremendous regret I was forced to stir, fracturing the perfect stillness with noises of my own making.

Elliott H. Berger, M.S., is the Senior Scientist for Auditory Research at EAR / Aearo Company, where for 25 years he has studied noise and hearing conservation, with an emphasis on hearing protection. He has been lead editor for two highly regarded texts in the topic area, and has also presented his research in over 60 articles and other text book chapters.

Soundwalking at Night

A Research Project by Andra McCartney and Sandra Gabriele

Presented at the Night and the City Conference
McGill University, Montreal, Quebec
March 15–18, 2001

Andra:

I want to begin today by situating our practice of doing soundwalks. This term was used by composer Murray Schafer of the World Soundscape Project, Vancouver, in the 1970s to describe walking and listening tours of specific places. At that time, however, Schafer used soundwalks only for orientation and did not give them the status of a research practice. Later, Hildegard Westerkamp, a Vancouver sound artist, explored the practice of soundwalking further in a radio series of the same name on Vancouver Cooperative Radio (Westerkamp 1994). Westerkamp wanted to play soundscapes of local places back to radio listeners, with the intention of provoking people to listen more closely to their sound environment. She often provided a commentary about aspects of the place that could not be heard directly. Westerkamp at that time spoke of the recording microphone as a tool of access for her as an immigrant and as a woman: wielding the mic gave her a sense of authority and agency. I have made soundwalks the main focus of my research and artistic practice for the last several years, and have also experienced that sense of authority, as well as how in certain situations—often in soundwalks at night—that sense can be fleeting or disrupted. It is that sense of recordist agency which is the focus of our discussion today: we want to explore the dimensions of that authority, as well as its fractures and fissures, in relation to gender, in soundwalks at night. I will introduce some issues and Sandra Gabriele will discuss her reflections on a specific recording that she made recently as part of our sonic investigation of the area surrounding the Lachine Canal.

When Sandra and I do soundwalks, we are at once documenting and paying attention to our relationships with the urban and suburban sound environments in Montréal and Lachine. In some ways, we are then acting as urban explorers or flâneuses, observers of urban environments, wandering through it, paying attention to the mundane, fragmented aspects of city life. It is important to note though that this is only a partial connection: we are not only detached observers, as flâneurs are often defined, but simultaneously engaged listeners, connected by a microphonic umbilicus to the world surrounding us, with a heightened engagement because of the amplified perspective that we hear. Nevertheless, we are flâneuses in the sense of being both wandering explorers and documenters of city life.

The question of to what extent it is possible for a woman to take the position of a flâneuse is one that has provoked feminist thinkers for some time. Elizabeth Wilson (1991) argues that because of the freedom and anonymity offered by city life and its possible escape from the suburban hearth, that it is possible to be

a female flâneur. Wilson posits a radical difference between the freedom of urban life and the constraints of suburban life. Sandra and I wondered to what extent these differences would play out in our soundwalks at night. But even though there were predictable differences in traffic and industrial sound levels, our social experiences as women soundwalking at night have been uncannily similar.

Linda McDowell (1999) points out that even with the freedom of urban life, women are sometimes “still subjected to and constrained by the intrusive male gaze and, on occasion, actual verbal or physical harassment” (1999: 156). Before I pass you on to Sandra, I want to give you a brief introduction to some of my experiences soundwalking at night.

There is no question that I generally feel a heightened sense of agency when I prepare to go out soundwalk recording.

(I walk over and put on my black coat)

My recording gear is stowed in a sensible clutch,

(I indicate my pouch)

(laughter from the audience)

hidden beneath a large and—at least from a distance—imposing black leather coat,

(I turn away from the audience, and get out my mic)

the only visible extension a pistol-shaped microphone in my hand.

(I turn around with the mic in my hand.)

But I don't need this right now, I will put it away in my pocket.

(pause) And I am happy to see you.*

(laughter from the audience)

I walk purposefully, focused on listening and recording. On Hallowe'en, October 31, 2000, I went out to the Lachine pier to record. As I crossed the park towards the pier, I saw a car parked by the lighthouse. When I approached closer, someone started the car, which moved slowly past me towards the parking lot, faces peering out. I wondered whether my approach had startled them, but quickly became more interested in my recording task. A few moments later I was startled to hear the sound of the car moving towards me at high speed. I jumped out of the way and went back to the park, shaken. I think what I was experiencing here was a reaction to my costumed agency—the occupants of the car may have thought it was a police officer approaching, until they saw me close up. Then they clearly wanted to scare me, and to take back their territory. On other night soundwalks, I have experienced similar but less extreme territorial claims: a cyclist changes his course to pass closer even though there is lots of space, a walker throws ice into the river behind me. But Sandra's experience goes beyond territorial claims into a dialogue about agency and place.

Sandra:

Removed from the many distractions of day walking, the night, in many ways, offers an ideal time to do a sound recording. Under the cover of darkness, the tyranny of the visual is compromised as I take on a new relationship to the space around me that relies less on what I *see* than on what I *hear*. As a woman walking alone, however, recording at night, with its technologically amplified sounds, displaces the usual ways in which I make sense of the sounds and space around me. With all sounds suddenly heightened, the relationship between sound and place is different, leav-

ing me with a profound sense of vulnerability as the usual ways in which I can determine risk or potential danger—as in the slight difference between the rustling of leaves from the wind or from someone walking through them—is radically changed. Whatever sense of agency I might have, as Andra described earlier, is seriously compromised in the dark. Circumscribed by all the attendant cultural and historical meanings of women walking in the dark, soundwalking at night through trails that exist on the edge of the city bordering an old industrial zone, can be risky business. Whatever ways I have engaging with the sounds that surround me during the day, they shift as I listen in a different way at night, leading me to take on an assertive posture that, nonetheless and paradoxically, begins with vulnerability. For me, this vulnerability, this willingness to hear in an unfamiliar way, is at the heart of my soundwalking practice.

Hearing news of this conference, Andra and I decided to record several night walks. After unsuccessfully attempting to do one the week prior because of my fear of this dark, unknown space, on October 25, 2000, I set out to try again. The time is about 8:00 pm, the sun has long since set and I am walking along a part of the canal I have never used before, moving westward from the Atwater entrance. There are few people on the trail, mostly men. Concentrating on the sounds I'm hearing, I can hear traces of my discomfort. Continuously turning around to look at what is following behind me, I'm aware of how my nervousness—the rustling of my clothes, the clanging of wires—is registering in what I'm recording. I decide to leave the trail itself and walk along the canal in the dark, away from the path and the lights that line it. I straddle the twin sides of the risk that I'm taking—the vulnerability it creates in me as I place myself in the dark, all those stories of men attacking women in the dark, jumping out from behind bushes, yet enjoying the power it gives me to observe unnoticed, to take up the position of night walker, of flâneuse. It is only when I feel this agency that I am able to focus solely on what I am hearing. As I walk, I silently follow the movements of each person who walks past me, tracking where they go in relationship to me.

Riding by on a bike is a young man, probably not much older than 22, 23, potentially one of my own students. As he rides by slowly, he sees me walking in the shadows, and he sees me looking at him. We hold a look as I turn my head to follow him. He rides past me, then stops, turns his bike around and comes back towards me. The excerpt I'd like to play is the recording of what happens when he comes towards me. At the beginning of the piece, you'll hear me walking for some time, you'll then hear me sniffle. About 10 seconds later, if you're listening closely, you'll hear the bike whiz by me. At that point, recognizing the danger I'm in, I quickly scurry through the leaves towards the trail and stand under a lamp post, in full visibility. Not wanting to move out of that light, I stand under it and feign looking for something in my satchel. As he approaches me and begins talking to me, I keep my hand in the satchel, thinking he may attempt to steal the mini disk recorder, but also aware that by keeping my hand in my bag, I look as if I'm reaching for a weapon. The weapon I wield ends up being a surprising one.

[The recording of the incident was played at this point in the presentation. Even with equalization, the man's voice was almost completely masked by traffic noise, since Sandra, in her fear for her personal safety maintained the distance between them and held the mic close to her body. She did not shift the mic to better record the conversation.]

In retrospect and in conversations with countless people about this walk, I wonder if my move toward the safety of the light had been read suggestively, as if I was meeting him half way there to

wherever he was hoping this might go. What was probably about to be a proposition with the words, "I don't think so but..." is prematurely closed down as he notices I'm recording and asks me "What are you doing with - you're recording?" When I respond, "Yes, I'm recording," his disbelief is clear with the simple, "For real?" Perhaps assessing the risk of me holding a microphone, recording this exchange between us however, he suggestively says "I wanna see what happens, I wanna see..." (Andra heard "I wanna say what I wanna say") and significantly, "you wanna stop." Realizing that I am making no move to stop recording, he thinks to ask me what I'm recording. When I respond with a flip pan, "just the sounds," he asks, "For school?" My rather nervous response, "for research," somehow makes him abandon whatever motivation he had for approaching me, leading him to quickly back off with, "That's OK." The microphone, as a means of recording, as a technological barrier that stands between me, my body and the man, ultimately marked my body as being off limits. By refusing to stop my "research," reclaiming the agency I normally feel while recording, I shifted the dynamics between us, leaving him to simply get back on his bike and ride away.

As Andra mentioned, Linda McDowell (1999) has questioned Wilson's assertion that a woman can take up the position of flâneuse, by insisting that a woman's presence on the streets, particularly at night, is always complicated by her gender. This gendered position marks her visibility, making the notion that a woman can observe quietly, detachedly almost impossible. In this instance, what complicates this notion of being gendered, however, is the ways in which my presence in this encounter was most marked by *both* my gender initially, in what perhaps led this man to approach me, forcing me to abandon my attempts at being a flâneuse, *and*, by the technological extension of the microphone and the ways in which it protected me *while simultaneously* intensifying the experience. While the circumstances of this encounter may have been enough to have startled most women, the immediacy and intensity of this situation was a product of my active engagement with the sounds around me. Choosing to hear the sounds the way we do, by insisting on our active and bodily engagement with sound in our practice of soundwalking, the position of the detached flâneuse remains out of reach for both Andra and I. While there are always risks associated with the ways in which we choose to move through the soundscape by remaining intimately connected to the places we are in, those risks are further intensified, further complicated by our gendered bodies.

Reflections on the question period

We were surprised that during the short question period, the only two questions posed were about the ethics of using such a recording in a conference paper.

The first man asked us, "how would you feel if someone used your voice in a conference like this?" He prefaced this question by saying everyone does foolish things at times, setting up an identification with the man on the path.

We had no qualms about using this recording, before the session. It was not a stealth recording—Sandra was using a handheld stereo mic, held in front of her. The content of the conversation made it clear that she was recording for research. The man was speaking quietly, and his voice is almost masked by traffic, so that it cannot be clearly identified. In fact, the distance between Sandra and the man was significant enough that we continue to disagree on his precise words, even after repeated listening. Sandra did not describe his appearance in any way. But the question led Andra to speak to our university's ethics committee. It is considered allowable to use the recordings from a public place without getting specific clearance from each individual there.

The focus in the question period on the ethics of using such a recording occluded the main point of our paper, which was to illustrate how a woman recordist's ability to do recordings at night is complicated by gender relations in which her privacy and personal space is threatened. As Sandra says: "Does it matter that I felt threatened? Does it matter that the contact was initiated by the man, and continued despite his awareness that I was holding a mic and recording?" The comments of the question period focused on the cyclist's right to privacy, without taking into account that by approaching a woman standing alone on a path at night and interrogating her about what she is doing, he is invading *her* right to privacy. Sandra's discomfort with the situation was evident in her voice, yet the cyclist continued. The questioners at the conference seemed to want to defend a man's right to approach a lone woman at night in a public place and question her in privacy. But as Sandra responded at the conference, there was no innocence in that encounter. The moment the man turned his bike around and approached her, a familiar cultural and historical narrative about men and women meeting in the dark in a relatively secluded place was mobilized—and both of them were aware of it.

Our work seemed to raise fears of being caught doing something inappropriate (the first questioner said, "we all do foolish things"), and in this sense the microphone is less like a pistol and more like a perimeter security system. When the man realized that Sandra was going to continue recording, he gave up his original intention, whatever it was, and moved on.

In this article, we were not able to play you the recording. But since the conference, we believe even more strongly that this is an important issue to consider and discuss with people who do soundscape recordings. We look forward to your comments.

Andra McCartney is a soundscape artist who teaches Sound in Media for the Communications Studies Department at Concordia University, Montréal. She is currently conducting two research projects. The first, 'Soundwalking Blue Montréal,' is a soundscape investigation of the area surrounding the Lachine Canal. The other, 'In and Out of the Studio,' is an ethnographic project about the aesthetics and working practices of women sound artists, composers and producers in Canada.

Sandra Gabriele is a PhD student in Concordia University's Joint PhD program in Communication Studies. Her dissertation traces the entry of women into the field of journalism at the end of the nineteenth century. Her other areas of research include: electronic journalism, feminist theory and history, cultural studies, and sound recording.

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* The line often attributed to Mae West, "Is that a gun in your pocket, or are you just happy to see me?" was said in her last movie, "Sextette." It was a self-reference, since she had had the line credited to her long before. It is rumored that she first muttered a version of the line to an interviewer.

Don Wherry

1935-2001

We are saddened by the sudden death of percussionist and composer Don Wherry in St. John's Newfoundland, Canada, on July 28th. Don Wherry was born in Hamilton, Ontario, in 1935 and moved to St. John's in 1973, where, ten years later, he presented—together with his wife Kathy Clark and an enthusiastic and supportive team of colleagues—the first Newfoundland Sound Symposium. Ten such Symposia have followed since, each one integrating film, dance, theatre, sound installation, and every possible variety of music, all linked by sound, by awareness of sound, and by discussion of sound among participants and the public.

The symposium has brought international attention to the unique soundscape of St. John's and surroundings, as the area turns into one big sound event during its ten-day run. A characteristic feature is the Harbour Symphony, where a new piece written by a visiting composer, is played at noon on each day of the symposium. As the city of St. John's is located in a deep bowl-shaped formation all harbour sounds are audible throughout the city. Or there are performances like the one at "the flume tank," a research facility used to study wave dynamics: an underwater dancer and—rowing in a dingy above—Don Wherry playing a partially-submerged steel bowl, the sound picked up by a hydrophone.

There have been stirring midnight performances at the historical site of Cape Spear, the most easterly point in North America, involving dancers, story-tellers, musicians, the fog and the foghorn. And sometimes the full moon over the water. Or there have been sound installations activated by the strong Atlantic winds on Signal Hill, a high and exposed rocky cliff protecting the harbour below and overlooking the city. And then there was the memorable boat trip to the bird sanctuary in 1983 leading deep into one of the rock clefts, so that we could hear the echoes of the bird sounds.

As a percussionist, composer and instrument inventor Don Wherry participated in a wide range of possibilities of sound, from folk and classical music to free improvisation and sound installation. He brought his initiative and vision to the service of the local and international communities of artists working with sound and influenced many of his students to continue in sound exploration. Don Wherry will be hugely missed and his legacy will resonate long into the future.

Donations in his memory can be made to the Don Wherry Memorial Fund, care of the Memorial University School of Music, or to Sound Symposium, 81 Circular Road, St. John's, NF Canada, A1C 2Z6.

Gayle Young



*Village Bells:
Sound and Meaning
in the 19th-Century
French Countryside*

Alain Corbin
New York:
Columbia University Press
\$35.00 US

Reviewed by Douglas Kahn

Nothing had prepared me for being awakened for the first time by church bells. Having spent most of my life in North America where church bells cannot compete with advertising jingles and muzak blaring and seducing at every conceivable place, here I was in northern Italy, up against the Austrian border, invited by a group of Viennese poets to talk about sound, when this early morning call to prayer cut through my dreams. My first reaction was confusion—no I hadn't set my alarm—followed by irritation—it had been an awfully long flight—then disbelief at the sheer intensity of the sound, finally, astonishment. The sound was magnificent: rhythmic in its steady pealing but slightly out, with an unevenness that spoke of manual practice; full bodied but with atonality that bore traces of the distance each toll traveled before it ruffled my early morning ears. The sound was more than simply aural; it carried with it the contours of the landscape, the chilled density of the mid autumn atmosphere, the venerable stone of the bell tower, the weight of the bells themselves, the history of the tone, the ritual of its insistence.

A few days later I visited the source. In the background were vast untouched forests belonging, I was told, to an aristocratic family for whom the possibility of logging was inconceivable, a conservative tradition in the best sense. The church seemed similar; an aged density of pricelessness forming a bulwark against the crass monetary pressures which were so common at home. Once inside, however, my initial anxiety upon first hearing the bells was replicated in another sense when my eyes fell upon open manuscripts depicting, in great detail, the gruesome torture and death of the early martyrs. Such is the melancholy and mellifluousness of bells: both an irritation and a wonder, a sign of joy or tragedy. Yet despite the fact that the tolling of bells offers a sound graven with meaning, a sound that emanates from the best and worst of human institutions, one that marks the greatest celebrations and lamentations, the hours of the day and calls to prayer; despite being at the center of so much history and so many communities, very little is known about the sound of bells. And this has much to do with the fact that very little is known about the culture of sound in general.

Fortunately, this scholarly silence has been broken forever because the humanities have finally had their own wake up call. In what seems to be a classic case of simultaneous discovery by peo-

ple unknown to each other working in different parts of the world, or at least different parts of the academic world, there has emerged a number of substantial books addressing the status of sound, voice and listening in Western culture.

One of these books is *Village Bells* by the French historian Alain Corbin. It is a relatively conventional chronicle, yet totally captivating nonetheless. Using campanarian literature, or the tradition of writing on bells, both as an object of study for Corbin and a primary resource for the entire book, Corbin folds it into his larger project of a history and anthropology of the senses, something he has made his own. You may already be familiar with Corbin's account of another sense in his book *The Foul and the Fragrant: Odor and the Social Imagination*. With *Village Bells* he has moved from the nose to the ears in his attempt to map the balance of the senses in 19th century France. While he has detected precedents for such a study in French historiography harkening back sixty years, he has written elsewhere that it still "represents for the historian a project—or rather a gamble—which is risky but fascinating."

The strength of Corbin's account lies in his examination of the role bells played in the material culture and daily lives of people, not merely in the minds of certain practiced commentators, although he does attend to a few Romantics toward the end of the book. From his sources Corbin tries to extract an historical account both of the senses and of sensibilities; affect, emotion, imagination, tolerance, nostalgia and the like. Ironically, the bulk of his research hoard exists due to the regulation of bells in a history of their progressive silencing. France was a "ringing nation" during the Old Regime; a set of bells could number up to eighteen and, as one 19th century campanarian recounted, "So violently did the reverberation of all these bells agitate the air that... those listening suffered a sort of vertigo and minds were distracted from any other preoccupation." The Revolution however, did not find bells appealing. Civic officials attempted to desecralise and secularize the ringing of bells, to separate them from the events and rites of passage of people's lives in order to control the power of the clergy. A public prosecutor of one commune suggested that the metal could be better melted down and forged into weapons to bring "terror and death" to the enemies of the republic. Other administrators tried a softer approach: "what role could bells truly play in religion?" one asked, "surely it is superstition to think the base materiality of the bell could have anything to do with the immateriality of the spiritual." As a result, there was a vast reduction of bells during the First Republic, some 100,000 bells from 60,000 bell towers. More significant however, were the limitations placed on bell ringing. As one commissioner said, "there is no disputing the fact that what hit the people hardest in the Revolution was being deprived of their bells." The effect on the auditory environment was profound.

This tampering had to contend with the formidable collectivist energies that the bells gathered within their earshot, with how they resonated through people's lives and situated them among their communities and a world of natural and spiritual forces. For some, the ringing bells could drive a thunderstorm away, while others caught in an epidemic feared that the sound of these huge instruments mourning the dead might "strike the senses" of those still battling the illness and push them over the edge. The absence

of a bell toll could serve as a weapon for the parish priest, its silence during a funeral was heard throughout the community as a rebuke—as Corbin puts it, “one of the final pages in the great history of marks of infamy and signs of exclusion in rural society.”

Through the 19th century the to and fro battles around the bells were characterised by complicated turns of events, splits among all camps, a full array of the passions and cool rationale. Republicans tried to replace the bells with drums but the sound did not travel as far, as they regulated the ringing, the dergy sent children through the streets with horns and small bells to circumvent the new rules. While these battles were capable of moving out into the streets as protest and riots, as individualism gradually supplanted communality, ideas of rights began to replace ritual. The photographer Nadar argued in 1883 that one of “the most natural of rights” was that of silence. The sound of bells was a noise, rife with meaning to be sure but one which could just as easily mean a call to prayer as a “signal for the fire to be lit under the stakes in Seville.” Even as early as 1831 Parisians weren’t awfully pleased with nuns using the bells at 4:00 a.m. as their alarm clock and, eventually, bells fell prey to noise abatement regulations as collectives were atomised and individuals became more interested in the sandman than the angels.

For Corbin, bells are at the very center of a “history of the tearing of the auditory web” wherein city dwellers “lost the experience of time as quality” as meaning was stripped from the sound of bells. He laments a gradual “decline of listening” from around the 1860s, an impoverishment in the culture of the senses for both rural and urban areas, as the bells were regulated to near extinction. He concludes by saying that much of the public functioning slipped from an auditory to a visual regime—announcements were printed on posters, time and seasons on the face of private clocks and calendars—and the sound of bells began to get lost amid the sounds of modernism.

Unfortunately Corbin ends his with a lament, thereby situating it as a text within a history of nostalgia. [However, the important part is that the author senses an imperative to comprehend the auditory culture of an earlier time as a way to understand the present day. By leap-frogging historical epochs he brings attention to a stubborn problem posed in studying auditory culture: how to understand the profound auditory shift taking place in the late-19th and early-20th centuries? This too is an historical exercise but of an auditory epoch we happen to still occupy, one characterized most overtly by the noisy machines and motors of the internal combustion engine and electricity, ever increasing their preponderance to the point where there isn’t enough straw or political will to go around. The most unique development in modernism, however, is the onslaught of auditive communications technologies beginning in the 1870s which in the 20th-century was amplified to the intimate din we know today. How the media modify an entire auditory culture requires powerful analytical gear, in part provided by exactly this kind of historical account.]*

[]* Originally part of a larger review article this last section of the text appeared in *Soundscape—The Journal of Acoustic Ecology*, Volume I, Number 2, as part of the review of Bruce Smith’s *The Acoustic World of Modern England: Attending to the O-Factor*.

Douglas Kahn is Associate Professor of Media Arts at the University of Technology, Sydney, and author of *Noise, Water, Meat: A History of Sound in the Arts* (MIT Press, 1999) and coeditor of *Wireless Imagination: Sound, Radio and the Avant-garde* (MIT Press, 1992/2001).

Announcements

Seeking Sound Stories!

Phil Dadson
P.O.Box 66060, Beachhaven
Auckland 1310, New Zealand
E-Mail p.dadson@auckland.ac.nz P.O.Box

If you know of a sound-story from legend, myth or other, or you have a personal sound yarn to contribute, contact Phil Dadson, a New Zealand based sound artist/performer & composer, who is collecting sound-centered stories from classic and contemporary sources towards a possible publication.

The project has its genesis in stories Phil began writing to record his own experiences. Later in 1991 he started collecting stories on video from sound artists, composers, experimental instrument builders/performers, relating to profound personal experiences with sound. From these recordings a video was compiled in late 1991 titled *Sound Stories #1, Meetings with 14, US experimental instrument makers*. Now ten years on, the collected materials continue slowly to grow and the field is being extended to include sound stories from global cultural sources, via folk tales, legends, myths etc. Take a look at *Sound Stories*, under *Dadsonics* on his *From Scratch* web site <<http://www.fromscratch.auckland.ac.nz>>

EarthEar Update

Web Site: http://www.EarthEar.com/recent_soundings.html

EarthEar recordings has streamlined its 200-page site so you can more easily find what you are looking for. A new feature is a single page of soundscape news, project updates from around the world, and recent additions.

New EarthEar titles include:

- Steve Feld’s amazing (and inexpensive!) 3CD overview of Bosavi song, showing continuity and change over three generations.
- New titles of natural ambiances from two of our most popular producers, Doug Quin and David Lumsdaine.
- The widely reported CD of Thai elephants making music.
- And, a stellar electroacoustic immersion from Australians Jim Denley and Stevie Wishart.

The Auditory Group of the Acoustical Society of France

is pleased to announce an international two-day symposium on sound design in Paris. March 20-21, 2002,

A call for papers has been made. You can find additional information at <http://www.conf.fr/loa.espci.fr/ds2002>

AES 22nd International Conference on Virtual, Synthetic and Entertainment Audio

Helsinki University of Technology, Espoo, Finland
15th-17th June 2002

The conference committee invites you to submit technical papers for presentation at this three-day conference, organized by the AES Finnish Section, the Helsinki University of Technology’s Laboratory of Acoustics and Audio Signal Processing, and Nokia Research Center. It will bring together researchers and developers in the fields of virtual and synthetic audio, as well as entertainment audio applications, targeted particularly to PCs, the Internet, and mobile devices.

For further details please consult:
<http://www.acoustics.hut.fi/aes22/>

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Silent Rumours: Burma revisited 1990/2001

by Sabine Breitsameter

*This is Burma,
and it will be like no other country,
which thou knowst.*

R.Kipling, *Letters from the East*, 1889.

Arrival

1990/2001: On top of the gigantic shimmering bell-like shape, high in the air, hundreds of tiny little golden bells, moved by the breeze, dicking delicately, like a very distant symphony of birds, barely audible: the gold plated Shwedagon Pagoda.

2001: Rangoon. A big row of Japanese cars, quite run down, in front of the airport building. The drivers waving, yelling, promising best prices. After entering the taxi the driver changes his cassette from local Burmese pop to Britney Spears. I ask him to play the previous cassette. First he doesn't understand. "No English, Mem." After some effort he does, and when the local pop hero starts to sing his sentimental tune again, he hums along.

1990: Outside the airport: Birdsongs. Quietness. Then a thunderlike roaring: an old bus, probably from the late 40s, approaches, covering its trail with exhaust fumes, dust and impenetrable noise. On the long drive along the wide avenues to the city center: no other car, just two or three old army lorries. "We have almost no private cars in Burma," I was told by the sad bus driver in fluent English.

Traffic Jam

2001: Fifty or more Japanese cars honking. Then a crescendo of "Jingle Bells"—synthesized version—from all the cars in reverse gear that are trying to escape the traffic jam. The reason for the car cluster: a goat herd grazing between the traffic lanes.

Voices

1990: This student and I are sitting at the roadside, greeting the local people passing by who sometimes stop to join the conversation. She explains to me every afternoon of the week how her fellow students, who had been caught after their revolt in 1988 and had been beaten down by the army the year before, are interrogated, persecuted, and tortured in prison. "I am happy that you have come, be-



Oxcart in the plains of Pagan, Burma

Holger Schenk

cause you can listen to what we want to tell you. And in two months there will be general elections anyway?"

2001: "Be welcome. Sit down. See Burma. Not much has changed. What shall I tell you? There is not much. But at least you can buy a used Japanese car now, if you have the money. And more importantly: you are here. You have come again."

1990/2001: On the platform of the Shwedagon Pagoda: The sounds of the Buddhist bells. Birdsongs. A man chanting over and over again: "I am washing the Buddha. I am washing the image. My son was born on a Friday. Therefore I am washing this Buddha. May my son stay healthy. May my son be lucky in life. May my son have a good life." The delicate clicking of the little golden bells on top of the stupa.

2001: During the nights: loud pop music from the room above me. Every night these shouts and cries, which sound like a woman beaten by a man. I'll go upstairs next time when I hear it again.

Traffic Jam

1990: Somewhere in the dusty plains near Pagan: Forty oxcarts loaded with huge jars, heading to the well. First come, first served, as long as there are supplies. So they hurry up on the dusty, stony road. Forty jars want to be filled. And 80 wheels creak incredibly.

The Cool Café

1990: Sitting on the sidewalk of the capital's boulevards, on small foot stools, next to the

passing trishaws and occasional lorries. Sipping thick, sweet milktea. A cassette tape plays in the background. Burmese songs, with their typically melismatic phrases. Everybody is silent. The background becomes the foreground. The only word, which can be understood in English, is "democracy". Every song has this word in its refrain. Every song(?) underlines the certainty, that all will change after the general elections two months from now.

Buying and Selling

2001: Rangoon, Sula Pagoda Rd./Anawratha Rd.: An excited crowd of young males. Yelling almost violently, fast moving towards the corner of the road through the late afternoon honking traffic jam. All this made rhythmical by an amplified voice: "cap—capcapcap—cap—cap—capcapcap—cap—cap.... Lady, you want cap? Lady! Buy cap for handsome husband. Buy cap from Thailand. New arrival. Capcapcap—cap—cap—capcapcap—cap..." As I approach the scene: complete silence. I look at a red and a white and a blue cap. Which one shall I buy? "Lady, buy this one.—No, that one is better.—Nonsense, this is ideal." Dozens of voices yelling at me. Silence as I make my decision. Laughter from fifty people surrounding me, as I put it on my head. Three schoolboys follow me up the street, wearing the same cap on their head, yelling: cap—capcapcap—cap...

Transport

1990: The oxcart picks me up from the bus station. It takes 30 minutes to get to the hotel. I can barely stand the loud, incessant squeaking from the wooden wheels. "We love

that sound. It banishes the bad spirits,” the receptionist at the hotel tells me.

Buying and Selling

2001: “Don’t go upstairs tonight. It’s business. How shall I explain ... Her visitors don’t want to be disturbed. Some are veeery important. I’ll ask her to lower the volume of the TV.”

Transport

2001: In the province. Towns consist of teak houses. Creaking doors. Movements on wood. The small streets full of bicycles, trishaws, horse carriages. The latter are quite loud and add a dominating layer to the soft sounds of the bicycles on the mud roads. The only motor cars belong to the police and the local bus station.

Silent Rumours

2001: Rangoon. In search of the voice of Aung San Suu Kyi, the Nobel Peace Prize winner from 1991. She has been a powerful symbolic figure for the peaceful return to democracy in Burma. The dictators simply call her “The Lady,” to avoid the sound of her name—she is the daughter of the national hero Aung San, who brought Burma to independence. Aung San Suu Kyi has been kept under house arrest almost continuously for the last ten years. But, so go the rumours, every weekend afternoon she speaks to the public from her garden, using microphone, loudspeaker and amplifier. Many hundreds, if not thousands of people go to listen to her speeches from the street across her house. I take a taxi. The whole area is shut off by check points. No entry point, not even for a pedestrian. Too vast a place for the range of her modest amplifier.

The Cool Café

2001: In Magway, a town somewhere in the Burmese province. A café at the roadside. Squatting on low chairs, drinking instant cappuccino und green tea. Men playing chess silently. Then the music. Supposed to be background music, but too loud for it. Pop music in excellent imitation of the western one. Precise rhythms. Brilliant sounds. Cool instrumental arrangements. State-of-the-art HiFi equipment. Pop as pop can. Students drop in. They don’t talk. Just listen to the music. The old coffeehouse owner smiles, and increases the volume. It’s pop music from Hongkong, I learn, the latest releases. “Can you leave us your newspaper,” a student asks me when I am about to leave. “Do you read German?” I ask him surprised. “No,” he hesi-

tates, “it’s just to have something from far away. To keep it. Will you come again?”

Transport

2001: The oxcart’s creaking wheels take me through the vast lonesome plains of Sri Kshetra. In front of the very old and archaic pagodas where I stop for my visits, I feel almost deaf. “The sounds of the wheels protect you,” an archeological guard tells me.

Voices

1990/2001: Thatbinyu Temple, in the plains of Pagan. Long deep resonant soundlayers, bristling with the singing of hundreds of birds which live inside the temple. The temple—an instrument, a modulator of the out-

sleep. It sounds fascinating, but also alarming. I want to see it. No electricity. My torch. I find it somewhere on the floor of my narrow chamber. As I switch it on, a sudden deafening squeaking. Rats! Countless rats have been parading above my head during the whole night, playing the metal grid, which separates me from them. And now they are trying to vanish, in panic.

Sleepless Night II

2001: Tonight: no electricity. No light. Silence. No pop music from the room above. Around 3 a.m. I wake up to loud cries of a woman. Then some furniture seems to get thrown around. It is extremely loud and sounds like a brutal fight. The woman sobs



Shwedagon Pagoda, Rangoon, Burma

side sounds. The resonances of buses and lorries are converted into sounds as if from a deep sounding long-string instrument. Whatever powerful sound occurs outside of the temple, it will be altered, reflected, equalized, mixed and made rhythmical by the architecture. The temple composes.

Sleepless Night I

1990: Sounds by the metal grid above my bed wake me up. Like a steel instrument, that is rubbed subtly, sometimes with accelerating rhythms. Occasionally it becomes quite loud. A strange polyrhythm which disturbs my

excessively. I decide to go upstairs. I open the door of my hotel room—and immediately close it: in front of my room and in the whole corridor, thirty soldiers in their combat uniforms, with helmets and guns. I am shocked. Unable to do anything. Behind the curtain I try to peep out of the window. A lorry with motor running in front of the hotel. The military takes two people to the lorry.

Sabine Breitsameter is a Berlin based radio producer, festival curator and academic teacher involved in soundscape work, experimental radio and audio art in the digital networks.

Sound Practice

The 1st UKISC conference
on sound culture and
environments
Dartington Hall Centre and
Dartington College of Arts
Devon, England
February 16-20, 2001

by Rahma Khazam



A profound silence reigns in Dartington's Great Hall. Pauline Oliveros sits buddha-like at the far end of its ornate interior, eyes closed, focusing on her inner being. A motley assortment of people straggle in and occupy the empty seats in front of her. Over the next few minutes, time seems to stop in its tracks, as they sit there in silence, soaking up the meditative atmosphere. After a while Oliveros rises to her feet and leads the participants into an adjoining room. She guides them through a series of exercises designed to enhance their listening abilities and concludes by suggesting that they try to spend the remainder of the day listening through their feet!

Oliveros' early morning Deep Listening sessions were just one of the highlights of Sound Practice, the UKISC's five-day conference on the theory and practice of soundscapes. The first meeting of its kind to be held in the UK, it drew an enthusiastic crowd of researchers and practitioners from different backgrounds to the picturesque grounds of the Dartington Hall Estate in Devon. Showcasing a cross-section of cur-

rent thinking on the relations between sound and the environment, it comprised over 100 presentations, workshops, installations and performances. These covered such topics as sound archives, education, psychoacoustics, sound design and radio studies, reflecting the broad, interdisciplinary sweep of this new and challenging field of research.

The keynote speakers included composer and Deep Listening pioneer Pauline Oliveros as well as author John Hull, who gave a talk entitled "Sound: an Enrichment or a State?". Hull, who lost his sight at an early age, began by saying "I don't study sound—I live in sound," before going on to describe his experience of relating to the world through sound. Other speakers focused on new and thought-provoking issues: arguing that the role of sound in everyday life is largely underestimated. Author of *Sounding Out the City*, Michael Bull showed how personal stereos have become a tool enabling users to manage space, time and their social space. Bruce Smith, author of *The Acoustic World of Early Modern England* outlined the challenges of acoustic archaeology and the strategies he used in order to recreate the soundworld of Shakespeare and his contemporaries. The artists' presentations were very diverse. Pioneering Australian sound artist and performer Ros Bandt performs on novel instruments, such as glass and clay sculptures and industrial concrete cylinders. She discussed her work with these cylinders, from which she draws sonorous musical sounds. Edinburgh-based composer Christine McCombe, who frequently works in old or abandoned spaces, has used recordings of footsteps walking up and down the stairs in a Glasgow tenement or the sounds of dripping water in her compositions. She stressed the associative power of sound, and its ability to enrich the listener's experience of a space. Like the other artists present, her work explored the territories between music and environmental recording.

The evening concerts likewise exhibited a wide variety of approaches. They ranged from sonic journeys such as Hildegard Westerkamp's *From the India Sound Journal* to Pauline Oliveros's accordion improvisations and an inspired performance of Paul Rhys' *Dialogue for Clarinet and Birdsong* featuring Andrew Sparling on clarinet. A young and enthusiastic local audience turned up for the concerts by Janek Schaefer and Robert Hampson of *Comae* and Joe Banks of *Disinformation*. Banks specializes in esoteric sonic phenomena: his first piece included short-wave recordings of solar radio noise,

while the low, booming bass tones of his second piece were partly sourced from magnetic field recordings of nocturnal VLF radio at atmospheric. Accompanied throughout by live medium-wave radio noise from a step-up transformer, his performance proved an impressive experience.

The conference also included a soundwalk across Dartmoor, comprising periods of listening and commentaries by local guides. Equally invigorating was the heated discussion that took place on the last afternoon regarding the nature and function of soundscapes. For Hildegard Westerkamp, soundscape composition differed from music or sound art in that it was informed by a basic environmental concern, whereas other participants viewed soundscapes as a purely aesthetic activity. Yet others focused on the political implications of using environmental sound: soundscapes heighten people's awareness of their sound environment and can help to bring about social and political change. Sound Practice did not resolve these difficult questions, but it did create many opportunities for dialogue regarding these and other issues.

Rahma Khazam is a freelance music journalist based in Paris, France. She has an MA in Philosophy and a language degree from the Sorbonne. Her work has been published in the British music magazine *The Wire*, *Leonardo*, *Sound Arts* (Xebec, Japan) and a number of French publications. Her special interests include sound art. She is a panelist on *Leonardo Digital Reviews* and is currently preparing a conference on the work of the Russian composer Nikolay Obukhov.



Photography by Gregg Wagstaff

The Blind Feeding the Blind

An article by Stephen Moss in the *Guardian Weekly* for December 21-27, 2000, investigates a restaurant where patrons dine in total darkness. The Blindekuh (Blind Cow) is a Zurich restaurant housed in a former Lutheran church and is owned by the Blindlicht Foundation that provides opportunities for blind people. Opened in 1999 the Blindekuh is very popular with sighted individuals as well as those visually impaired or blind. Moss notes the challenges for first time sighted diners includes conversation without eye contact, eating without visual spatial references, and waiters seeming to appear out of nowhere. He comments that the restaurant is popular with blind dates who get to first know each other by voice and shared interests and later see each other in the restaurant lobby.

Low-Level Office Noise Can Increase Health Risks

According to a recent study by Cornell University environmental psychologist Gary Evans, low-level noise in offices can result in more stress and lower task motivation, which may contribute to heart and musculoskeletal problems. Evans, a professor of design and environmental analysis, suggest that even moderately noisy open offices might contribute significantly to health problems such as heart disease.

Evans randomly assigned 40 experienced clerical workers (all female and average age 37 years) to either a quiet office or one with low-intensity office noise (including speech) for three hours. He found that the workers in the noisy office experienced significantly higher levels of stress (as measured by urinary epinephrine), made 40 percent fewer attempts to solve an unsolvable puzzle and made only half as many ergonomic adjustments to their workstations as did their colleagues in quiet offices. Typing performance, however, was not affected.

Evans notes, "In terms of practice, our findings are potentially important, because if worker motivation is lower under open-office noise because of its uncontrollability, various design options could be adopted. For example, when concentration is required, workers might use a quiet, enclosed room or sound-making devices that they would control. These kinds of measures might help alleviate the harmful effects of open-office noise on workers." Source: Cornell University Press Release, January 22, 2001.

Smart Ear Piece Screens Out Unwanted Sounds

According to a *New Scientist* magazine article a Personal Active Radio/Audio Terminal (PARAT) earpiece has been developed by engineers at the SINTEF research lab in Trondheim, Norway for the Norwegian military. The aim is to help troops talk to each other in noisy tanks, planes or artillery placements.

The article notes that this device could equally well be used in hands-free sets for

cell phones, blocking out most external noise but letting through vital sounds like car horns or safety buzzers.

The PARAT earpiece contains a tiny computer, equipped with a program that can recognize particular sounds—the human voice, for example—by their characteristic waveforms. This lets it pick up the sound of people's voices while intelligently filtering out any other types of sounds you choose.

For the full story visit the *New Scientist* web site: <http://www.newscientist.com/dailynews/news.jsp?id=ns9999423>

And the Whirr Goes On

"Mr. Tools smiled as he said the whirring sound of the device took some getting used to, but he liked it because he knew he was alive." — *The Globe and Mail*

Robert Tools is a former telephone company employee and teacher, who had a titanium-and-plastic pump implanted in his chest July 2, replacing his heart.

Nightclub Noise Threatens Hearing of a Generation

A joint investigation by *The Sunday Age* and *The Big Issue* magazine, measured noise levels in 15 Melbourne nightclubs and live music venues. It found that in most venues the volume exceeded 110 decibels, and in one club was as high as 122 decibels. The safe level over an eight-hour period is 85 decibels.

Overseas studies suggest similar noise levels in clubs are causing generational deafness among young people. In Britain, the Royal National Institute for Deaf People says the incidence of tinnitus among the young has tripled since the early '80s. "We are roller-coastering towards an epidemic of hearing loss in middle rather than old age," the institute's chief executive, James Strachan, has said.

Ross McKeown, the president of the Tinnitus Association of Victoria, Australia, said he had noticed a marked increase in the incidence of tinnitus in young people in recent years "We're getting far more inquiries than we used to," he said. "I'm getting a lot of calls from people in their early 20s who are regular nightclub goers ... when people first find out they have tinnitus, they are absolutely devastated. It has a huge emotional impact."

Mr McKeown said many European countries had imposed restrictions on the noise levels allowed in nightclubs. "Australia is really lagging behind," he said.

Although sound engineers and venue operators say they would consider installing sound level meters to help DJs and band mixers to be aware when they are approaching hazardous levels, they say that patrons go to clubs at their own risk. They warn that overregulation of noise levels would cripple live rock venues and nightclubs.

Excerpted from: *The Sunday Age*, Melbourne, Australia, Sunday, 2 September 2001.

For full story see: <http://www.theage.com.au/news/state/2001/09/02/FFXMFUPA2RC.html>

QUOTES

I think I should have no other mortal wants, if I could always have plenty of music. It seems to infuse strength into my limbs and ideas into my brain. Life seems to go on without effort, when I am filled with music. — George Eliot

The truth is, laughter always sounds more perfect than weeping. Laughter flows in a violent riff and is effortlessly melodic. Weeping is often fought, choked, half strangled, or surrendered to with humiliation. — Anne Rice, *Taltos*

... I am indebted to the cat for a particular kind of honorable deceit, for a greater control over myself, for a characteristic aversion to brutal sounds, and for the need to keep silent for long periods of time. — Colette

My personal hobbies are reading, listening to music, and silence. — Edith Sitwell

True silence is the rest of the mind; it is to the spirit what sleep is to the body, nourishment and refreshment. — William Penn

From the persistence of noise comes the insistence of rage.
From the emergence of tone comes the divergence of thought.
From the enlightenment of music comes the wisdom of ... silence.
— Visions of Gregorian Chants

Accustomed to the veneer of noise, to the shibboleths of promotion, public relations, and market research, society is suspicious of those who value silence. — John Lahr

Are you going to come quietly, or do I have to use earplugs? — Spike Milligan

You do not need to leave your room. Remain sitting at your table and listen. Do not even listen, simply wait, be quite still and solitary. The world will freely offer itself to you to be unmasked, it has no choice, it will roll in ecstasy at your feet. — Franz Kafka

Only in quiet waters do things mirror themselves undistorted. Only in a quiet mind is adequate perception of the world. — Hans Margolius

Throw out an alarming alarm clock. If the ring is loud and strident, you're waking up to instant stress. You shouldn't be bullied out of bed, just reminded that it's time to start your day. — Sharon Gold

I love deadlines. I like the whooshing sound they make as they fly by. — Douglas Adams

BOOKS

The Book of Music and Nature:

An Anthology of Sounds, Words, Thoughts
Edited by David Rothenberg and Marta Ulvaeus
Wesleyan University Press, 2001. Hb \$60.00
US Pb \$24.95 US

This innovative book and CD bring together the simplicities and complexities of the world of natural sound and the music inspired by it. The collection consists of essays, illustrations, and plenty of sounds and music. It celebrates our relationship with natural soundscapes while posing stimulating questions about that very relationship.

The anthology includes classic texts by 20th century masters including John Cage, Hazrat Inayat Khan, Pierre Schaeffer, Rainer Maria Rilke, and Toru Takemitsu; innovative essays by Brian Eno, Pauline Oliveros, David Toop, Hildegard Westerkamp, and Evan Eisenberg; as well as short fictional excerpts by Rafi Zabor, Steve Erickson, and Junichiro Tanazaki.

The compact disc includes fifteen tracks of music made out of, or reflective of, natural sounds, ranging from Babenzele Pygmy music to Australian butcherbirds, and from Pauline Oliveros to Brian Eno. Source: promotional flyer.

Anti-War Grandma in Okinawa

A Narrative Life History Concerning Soundscape
(In Japanese)

Author: Kozo Hiramatsu

As an environmental acoustician the author participated in a research project of the Okinawa Prefectural Government investigating the effects of military aircraft noise on the everyday life and health of local residents in Okinawa, Japan. This recently published narrative life history is an account of one of these residents, the late MATSUDA Kamé, a woman who lived on and cultivated a tiny farm located right under the flight path of the huge Kadena U.S. Airbase in Okinawa. A record of noise measurements in the community in which she lived tells us that the maximum noise level was 126 dB in 1972, when the USA fought the Vietnam War. Although the aircraft noise exposure had been intolerable even after the Vietnam War, she would often speak out more forcefully against war than against the actual jet noise. The Kadena noise kept stirring up her war memories.

On Sight and Insight: A Journey into the World of Blindness

(Original title: Touching the Rock)

Author: John M. Hull

Oxford: One World Books, 1997.

Email: oneworld@itps.co.uk

Price: £10,99 ISBN: 1851 681418.

John Hull takes the reader on an incredible journey from his youth when he had partial sight to a time when all perception of light ceased. It is a personal journey of discovery and exploration into the nature of blindness. Through Hull's experiences we learn much about living in an acoustic world where sounds are transitory and can appear from anywhere around the listener. We learn about attentive listening and the importance of deconstructing the acoustic infor-

mation important for survival in a world without sight.

In the Beginning there was Darkness

Author: John M. Hull

SCM-Canterbury Press Ltd

Email: admin@scm-canterburypress.co.uk

Price £9.95 ISBN 0-334-02821-3

This book affords new perspectives for those who may not have considered the emphasis the Bible places on darkness and light as well as the sighted and blind. John Hull's writing provides insight into the attitudes of the Bible's authors and Jesus whom he profiles regarding blindness.

The Diabolical Symphony of the Mechanical Age: Technology and Symbolism of Sound in European and North American Noise Abatement Campaigns, 1900-40

Author: Karin Bijsterveld

Social Studies of Science, 31/1 (February, 2001) pp. 37-70

SAGE Publications, London, Thousand Oaks, CA, New Delhi. <http://www.sagepub.com>

From the Abstract: New technologies profoundly change our sonic surroundings, the world's *soundscape*. This study argues that the sound of technology not only tunes our sonic environment, but has also been a highly controversial aspect of technology loaded with symbolic significance. The importance of sound will be made clear by discussing the historiography and anthropology of noise and silence, and by analyzing a crucial episode in the history of noise abatement in European and North American cities.

Sound Design: Die virtuelle Klangwelt des Films (The Virtual Sound World of Film)

Author: Barbara Flückiger

Schüren Verlag, Marburg, Germany, 2001.

520 Pages. ISBN 3-89472-506-0

DM 48,- (6S 350/Sfr 46,-)

Postage free ordering in Switzerland at:

<http://www.buchundton.ch/formulbuchbestellung.html>

Also available in Germany at: www.amazon.de

Beginning in the middle of the 1970's the aesthetic vocabulary of film sound began to change. Suddenly there was the roar of jets overhead and helicopters emitting sound from all four quadrants of the movie theater. Dolby-stereo was newly developed. The term Sound Designer began to appear in the film credits. This book explores American mainstream film and the latest developments in the complex architecture of its sound design. The author, Dr. Barbara Flückiger, has worked with sound design in the European game and film industry and is a film researcher and instructor.

Sound Sculpture—Intersections in Sound and Sculpture in Australian Networks Includes CD

Author: Ros Bandt

Fine Arts Publishing Pty Ltd.

Email: info@gbpub.com.au

Price: US \$44.00 ISBN: 1 877004 02 2

The term 'Australian sound sculpture' is interpreted to include works created either in

Australia or by Australian artists, and the works are chosen for their interesting intersections between the sounding and sculptural components. ...Works are included which range from silent musical icons through non-intentional sounding sculptures to music machines, musical sculptures, spatial music, installed sound, and created actual and virtual sound environments. Some works are intended to last; others are fleeting. Some are ever-changing. Source: promotional flyer.

People, Paths and Purposes: Notations for a Participatory Envirotexture

Author: Philip Thiel

University of Washington Pree

P.O. Box 50096

Seattle, Washington, 98145-5096, USA

Price US \$60.00 cloth

This book brings together a social awareness, knowledge of environmental perception and cognition, and an operational design method in an unprecedented synthesis. It focuses on the central and critical concerns of socially responsible designers, as well as on the interests of researchers in environmental psychology, sociology, and anthropology. Source: promotional flyer [ed. note: the book is concerned with all sense perceptions, including sound perception].

COMPACT DISCS

Stack

Composer: Ros Bandt

Move Records

Fax: +613 9497 4426

E-mail: move@move.com.au

AUS \$ 26.00 plus AUS \$ 4.40 postage

In Stack, composer Ros Bandt brings together the inner and outer sonic possibilities gleaned from the massive city Stack, a fifty-five metre chimney stack designed to extract fumes from the new underground CITYLINK tunnel in the heart of Melbourne's underground. Sounds captured from all aspects of this structure, ambient sounds of the industrial extractor fans, builders working, and Bandt herself performing on a variety of unusual sound sources, are woven into exciting new sonic art.

Islands

Soundscape Compositions

Composer: Barry Truax

<http://www.sfu.ca/~truax/cd5a.html>

The soundscape composition is known around the world as an artform that originated in Canada with the pioneering work of R. Murray Schafer and the World Soundscape Project at Simon Fraser University. Recently, 8-channel works in this genre by Canadian composers Hildegard Westerkamp, Barry Truax, and Darren Copeland, along with visiting composers from other countries, have been featured in concerts and festivals in Europe, the U.K., U.S., and Canada. *Islands* brings together for the first time some of Truax's best works in this style, including Pacific Fanfare, Pendlerdrøm, La Sera di Benevento, Dominion, and the title track, Island, a vivid journey to a magical land.

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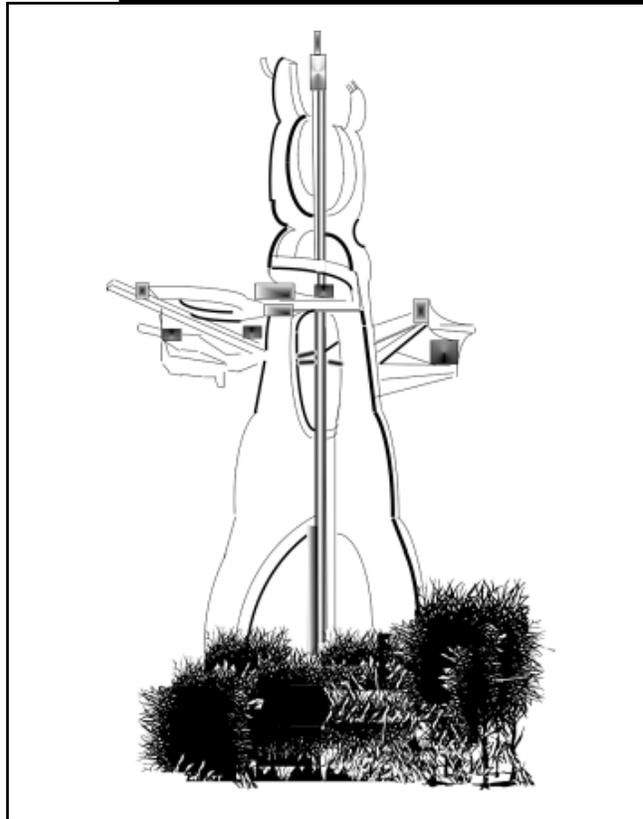
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Ode to Light by sculptor Arnold Haukeland and composer Arne Nordheim for the Stordal Centre for the Blind in Norway.

"One can hear the sculpture's shape through sound and tone."