

The Soundscape Newsletter

Number Six • June 1993

DEAR SOUNDSCAPE LISTENERS AND ACOUSTIC ECOLOGISTS

This is the last newsletter before the Banff International Conference on Acoustic Ecology, "The Tuning of the World", August 8-14, 1993. Many people have already registered and I want to encourage all others to do the same as quickly as possible (see page 3 for more information on the conference). Even though we hope to have more of these events in the future none of us know what the future will bring. So, why not go for it, use up all your savings, "follow your bliss", or, "what the hell"... come to a unique event in a most magical and spectacular place in the middle of the Rocky Mountains, Banff. Shall we make it an "ear cleaning" event? How do soundscape ecologists listen? Do they listen? Come and find out. It is an opportunity to meet others concerned with the relationship between environment, sound and society, with the quality of sound in the outer and the inner world. It is an opportunity to strengthen our ears and voices, deepen our listening, to hear each other, to get a sense of who we are as an international community, to learn how we can voice our concerns and effectively initiate change in an increasingly noisy and deafened world.

Unfortunately many of you live too far away to be able to join the conference this time. But reports and follow-up information will be available to you afterwards. However, if you would like to have certain questions and issues raised during the conference please write to the newsletter and your correspondence will be taken to Banff for discussion and brainstorming sessions. **Specifically I would like you to address the questions on page two of this issue, regarding the future of this newly established soundscape network as well as the future of the newsletter. Please write us your suggestions and ideas by July 15 so that they can be presented at the conference and included in the discussions.**

I started the newsletter two years ago because I hoped that it would increase communication among "soundscapers" and would be one of several organizing tools towards the conference. It has been rewarding to see that it has been successful in that regard. Thanks to all of you who have sent in articles, letters, announcements, your subscription money, encouraging thoughts and suggestions. In particular I want to thank my colleague Emiko Morita for her untiring commitment to the production of this newsletter.

But now it is time to make changes and I see the conference as an opportunity for that. The newsletter was started spontaneously two years ago because it made sense and seemed like the right thing at the right time. I relied on good will and volunteer contributions and produced it on a shoestring budget with little thought for fundraising. This has worked until now but definitely needs to change. **How this change will occur is largely dependent on what is decided at the conference and on your written input if you cannot be there.**

I am excited to present to you in this issue of the newsletter Bernard Krause's article "The Niche Hypothesis", Justin Winkler's account of a field trip to the Sahara desert, Mona Madan's quotation from an ancient Indian text on town planning and sound, accounts from various people of recent soundscape events and announcements of CDs, videos, books and events all to do with sound, environment and culture. Thank you for contributing and I hope to see many of you in Banff.

Hildegard Westerkamp, Editor

PLEASE ANSWER THE FOLLOWING QUESTIONS AND SEND TO:

The Soundscape Newsletter
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Fax: (604) 291-4024

DEADLINE: July 15, 1993

WHAT DO YOU SEE AS THE MOST EFFECTIVE WAY FOR THE SOUNDSCAPE COMMUNITY TO STAY CONNECTED?

- newsletter
- a more extensive publication (e.g. an International Journal for Acoustic Ecology)
- both of the above
- organizing regular conferences on acoustic ecology
- establishing an International Society for Acoustic Ecology
- other (please be specific)

IF YOU MARKED MORE THAN ONE OPTION ABOVE PLEASE LIST THEM IN ORDER OF PRIORITY HERE:

PLEASE NAME SOME FUNDRAISING IDEAS HERE IF YOU HAVE ANY:

VOICE ANY CONCERNS, IDEAS, QUESTIONS THAT YOU MAY HAVE REGARDING THE FUTURE OF THE SOUNDSCAPE COMMUNITY:

YOUR NAME:

ADDRESS:

PROFESSION/SOUNDSCAPE ACTIVITY:

WE WILL BE IN TOUCH WITH YOU AFTER THE CONFERENCE!

The Tuning Of The World will be documented and a publication containing key texts, transcripts of discussions, catalogue essays and illustrations will be produced that will ensure widespread dissemination and sharing of the conference proceedings.

The Soundscape Newsletter Editor: Hildegard Westerkamp.
Advisors: R. Murray Schafer, Barry Truax, Justin Winkler and the community of TSN (Europe).
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CONFERENCE UPDATES FESTIVAL UPDATES EVENT UPDATES

A Bioacoustic Portrait

Imagine Walter Tilgner strolling through the forests of Middle Europe all year round, recording the natural soundscape. After having eliminated all acoustic interference from cars, planes or boats, he produces surprising aural pictures. This time he has concentrated on the bluethroat (WERGO Natural Sounds SM 9005-2). The bluethroat proves to be a surprising bird and for good reason is called "bird of a thousand voices". It imitates cowbells, other birdcalls or frogs. Tilgner never isolates a bioacoustic subject. In his recordings you will always hear the larger natural context within which the portrayed species exist, whether it is water flowing or other birds or amphibians making their sounds in a sometimes complex soundscape.

The accompanying booklet is exemplary, describing the recordings in both German and English. Additional illustrations help the listener in imagining the places where the recordings were made. –**Hans Ulrich Werner**

An Exhibition of Soundscape History

Open Air Museum of Neuhausen ob Eck inaugurated on April 25, 1993
An exhibition about sounds: "Die Welt in der wir horen - Klang und Krach fruher und heute"
(The world in which we hear - Sounds and noise past and present). It is an attempt to present a history of sonic nuisances, of the age-old battle against acoustically symbolized superstition, of the impact of the industrial revolution on the former "quiet" rural society.
Contact: Christoph Heppeler, Freilichtmuseum Neuhausen, Pf 4453, 7200 Tuttlingen, Germany.

Conference Update

The Tuning of the World

Banff International Conference on Acoustic Ecology

August 8-14, 1993

an interdisciplinary exploration of acoustic ecology:
the relationship between sound and the environment

This international conference will bring together artists, scientists, scholars, environmentalists and educators committed to finding ways of "tuning" our acoustic environment. The extended length of the conference will ensure plenty of time for in-depth discussion and interaction.

Artistic events will be an integral part of *The Tuning of the World*. Lectures and panel discussions will alternate with a wide range of exhibitions, demonstrations, performances, morning "soundwalks" and other events which take advantage of the natural beauty of the Banff alpine environment.

Invited guests include: R. Murray Schafer, Ursula Franklin, Mickey Hart, Pauline Oliveros, Steven Feld, Victor Flusser, Marisa Fonterrada, Douglas Porteous, Barry Truax, Violeta de Gainza, Louis Dandrel, David Lowenthal, Hildegard Westerkamp, Richard Kostelanetz, Edward Poitras, Suzi Gablik.

Information about accommodation, costs etc. can be received from: Annie Hillis, Office of the Registrar, The Banff Centre for the Arts, Box 1020 Station 28, Banff, Alberta, T0L 0C0, Canada. Tel: 403 762 6185, Fax: 403 762 6345.

Advance Notice

International Colloquium on the Healing Nature of Sound

October 8-11, 1993 in the autumnal splendour of Epping, New Hampshire

This will be an opportunity for those actively using sound, music, and vibrational medicine to live and work together in a lovely residential retreat centre about an hour's drive north of Boston.

The first two days will be open for public participation, with workshops and presentations by many leading-edge researchers and practitioners. Sunday and Monday, October 10th and 11th, will be limited to about 30 "presenters" and an equal number of "auditors". It is open by invitation to those who have valuable research and experience in these areas and wish to share this with their colleagues. For further information call Christine Harris in Milwaukee, at (414) 964-3353, or send a 3 x 5 card with your name, address and phone number requesting conference information to MACROmedia, PO Box 279, Epping NH 03042 USA

Of Sound Mind and Body

a series of video programs exploring the healing nature of sound

Recipient of the 1992 Hartley Film Foundation Award through the Institute of Noetic Sciences
Part I: Music and Vibrational Healing 70 min. VHS (Also available in PAL European format)

The first part of this series surveys many contemporary therapeutic uses of sound: chant; toning; psycho-acoustics; music therapy; while explaining and demonstrating the underlying principles which make them effective instruments in the healing arts. This program conveys much detailed information on the uses and effects of sound and music for healing at a level which is suitable as an educational tool for health-care professionals, music therapists, bodyworkers, etc. Presented in a dramatic and evocative way with vivid natural imagery, this program will fascinate and inspire viewers regardless of their familiarity with the subject. To order Part 1: Send check or money order for \$50.00 per copy, plus \$3.50 shipping.

Musical Life in a Changing Society: Aspects of Music Sociology

by Kurt Blaukopf, Amadeus Press, Portland/Oregon 1992

Contents:

Goals of the Sociology of Music
The Search for the Origins of Music
The Beginnings of Sociology
A Conception of the Sociology of Art: Taine
History and Society as Reflected in Musicological Thinking
Acoustics, Sociology, and Ethnology
Art and the Materialistic View of History
Technical Conditions of Musical Activity
The Work of Art: Product and Factor of Social Activity
The Problem of the Sociology of Art in Marx
Economics, Leisure, and Lifestyle
Georg Simmel's Contribution to the Sociology of Music
Combarieu and French Sociology
Musical Analysis and Sociology
Music in the Sociology of Max Weber
The Transition to the Perception of Chordal Harmony
Artistic Intent as a Sociological Concept
Christianity and Desensualization
Mutations Through Technical Media
Architecture and Music
Acoustic Environment
Audience Research
Cultural Lag
The Economic Dilemma of the Performing Arts
Theodor W. Adorno
Ideological Harmonization
New Tasks for the Sociology of Music
The Mediamorphosis of Music as Global Phenomenon

The Niche Hypothesis:

A virtual symphony of animal sounds, the origins of musical expression and the health of habitats

by Bernard L. Krause, Ph.D.

Native Americans have long been aware that there is a symphony of natural sounds where each creature voice performs as an integral part of an animal orchestra. They are not alone. Indigenous cultures throughout the world are keenly aware of the power and influence of natural sound in each of their musical creations. As an artist and naturalist, I have long been fascinated by the ways in which hunters from non-industrial societies determine types, numbers, and conditions of game and other creatures hundreds of meters distant through dark forest undergrowth by sound where nothing appears to the Western eye or our untrained ear to be especially distinct. As we are primarily a visual culture, no longer connected to what environments can tell us through sound, we've lost aural acuity once central to the dynamic of our lives.

While working with the Nez Perce in Idaho and central Washington in the late 60s and early 70s, a tribal elder by the name of Angus Wilson suddenly became very silent when I told him I was a musician. "You white folks know nothing about music," he said, teasing me. "But I'll teach you something about it if you want." Early the next morning we headed out from Lewiston to Lake Wallowa into northeastern Oregon... to one of the many ancient campsites of Chief Joseph and his small band prior to 1877. Wilson led me to the bank of a small stream coming out of a valley just south of the lake and motioned for me to sit on the ground. I immediately began to shiver in the cold October air but continued to sit for the better part of an hour, every now and then watching Angus, who was sitting quietly about 50 feet away upstream. For a long while, except for a few jays and ravens, nothing happened. Suddenly, a slight breeze coming from up the valley began to stir some of the branches and the forest burst into the sound of a large pipe-organ chord appearing to come from everywhere at once. Angus, seeing the startled look on my face, walked slowly to where I was sitting and said, "Do you know what makes the sound, yet?" "No," I said. "I have no idea." He then walked over to the bank of the stream and, kneeling low to the water's edge, pointed to the different length reeds that had been broken by the wind and weight of the newly formed ice. He took out his knife and cut one at the base, whittled some holes, brought the instrument to his lips and began to play a melody. When he stopped, he said, "This is how we learned *our* music." It wasn't until ten years later, while recording the forests of eastern Kenya that that morning at Lake Wallowa came to mind again. It was there that I began to wonder about the importance of natural sound to the entire context of our survival and our cultural success.

Since the end of the 19th Century, biologists and zoologists have been focussing their research in large part on the study of singular creatures in an effort to understand an organism's connection to the whole environment. Isolated studies were always easier to grasp and measure within the canons of pure and carefully considered academic terms. Study controls were easier to impose. And quantified results have been the proverbial means to heaven's gate... at no little cost to comprehensive knowledge. Indeed, even in the relatively new field of bio-acoustics (bio=life, acoustics=sound) where feasible recording technology first emerged in the late 60s, field researchers have earnestly sampled single creature sounds and have tried to isolate individual animal vocalizations only to find that significant parts of the messages have eluded them altogether.

(Photo: Fred Mertz) *Bernie Krause recording N. American frogs, insect larvae, tadpoles, and the water boatman.*

In a recent essay on this subject, Stephen Jay Gould spoke of "... the invisibility of larger contexts caused by too much focus upon single items, otherwise known as missing the forest through the trees." ("Abolish the Recent," *Natural History*, May, 1991, pages 16-21.) Later in the article Gould suggested that we have a great deal of difficulty grasping the larger, more complex concepts—even when they may hold the key to simpler truths. Bearing this in mind, we are just now beginning to realize the important role ambient sound plays in our environment. Abstracting the voice of a single creature from a habitat and trying to understand it out of context is a little like trying to play Samuel Barber's "Adagio for Strings" absent a violin section as part of the orchestra.

From what we have just begun to see, it appears that ancient human beings had learned well the lessons imparted by natural sounds. Their lives depended as much (if not more) on their ability to hear and understand the audio information imparted by their surroundings as those given by visual cues. Small enclaves like the Jivaro and other tribes of the Amazon Basin survive using this information today. Not only can these extraordinary folks distinguish one creature sound from another but they recognize the subtle differences in sound between the various mini-habitats (as small as 20 sq. meters) in a forest, even when these localities appear to have visually identical biological and geological components. More likely than not, even when travelling in total darkness these remarkable groups appear to determine their exact location simply by listening. Furthermore, when we closely observe the effects of chimpanzees, Mountain Gorillas and Orang-Utans pounding out complex rhythms on the buttresses of rainforest trees, one cannot help but be struck by the articulation of the message, its effect on other groups of primates in the vicinity of the sounds, and the natural origins of the human art of drumming and making music.

Experienced composers know that in order to achieve an unimpeded resonance the sound of each instrument must have its own unique voice and place in the spectrum of events being orchestrated. All too little attention has been paid to the fact that insects, birds and mammals in any given environment have been finding their aural niche since the beginning of time and much more successfully than we might have imagined. Indeed, combining an audition with a graphic print-out of the diversity and structure of natural sounds from a rainforest forcefully demonstrates very special relationships of many insects, birds, mammals, and amphibians to each other. A complex vital beauty emerges that the best of sonic artists in Western culture have yet to achieve. Like the recent acknowledgment that medicine owes much to rainforest flora, it is my hunch that the development of our sound arts owes at least as much to the "noise" of our natural environments.

Based on R. Murray Schafer's exceptional vision of sound, the premise that soundscape ecology or the study of sound in any environment provides important clues as to "the effects of the acoustic environment... or the physical responses or behavioural characteristics of those living within it" (*Handbook for Acoustic Ecology*, B. Truax, Ed., ARC Publications, 1978), we are just beginning to listen more symbiotically to sound in our varied environments. What our ancestors knew and what successfully guides many forest inhabitants today is the knowledge that every zone in any given environment, where the natural habitat is still completely intact, has its own unique voice. Sometimes, if one moves just 10 or 20 meters in one direction or another in any old-growth habitat, the sound will be quite different even where there is similar vegetation and climate.

From the early bio-acoustic studies we have done, I believe we have recently discovered some evidence of the roots of ancient musical composition... something which has evolved over time and from which ancient human beings learned some pretty complex formulae. First of all,

these folks seem to have been aware that each creature appears to have its own sonic niche (channel, or space) in the frequency spectrum and/or time slot occupied by no other at that particular moment. Taking a giant leap when considering the habitat as a whole, the sounds of each of these zones are so unique and important to creature life in a given location, if one creature stops vocalizing, another immediately joins the chorus to keep that audio bio-spectrum intact. An audio bio-spectrum is an acoustical spectrographic mapping of any particular habitat by frequency (pitch, sometimes tone) and amplitude (loudness) over short periods of time.

Territory is now defined in dimensions well beyond the 3-D topographical. In younger habitats birds and mammals will occupy only one niche at a time. However, in older environments, some tropical rainforest animal vocalizations, like the Asian paradise flycatcher (*Terpsiphone paradisi*), are so highly specialized that their voices occupy several niches of the audio bio-spectrum at the same time thus laying territorial claim to several audio channels. From our observations of the Asian paradise flycatcher, we suspect that we will soon be able to utilize this acoustical methodology to help determine the age of certain habitats. Not a few migrating eastern American warblers, able to learn only one song and call in their lives, find themselves unable to adjust to the changes in ambient sound when they fly to their disappearing Latin American winter nesting grounds. Where these environments have been deforested, and when birds try to move to nearby and ostensibly similar or secondary growth habitats, they discover that they are unable to be heard. Our studies are beginning to show a strong likelihood that survival might be impaired because territorial and/or gender related communications are masked.

(Figure 1: 10kHz-10 second audio bio-spectrum of Pic Paradis, St. Maarten.)

(Figure 2: 20kHz-10 second audio bio-spectrum of Kalimantan, Borneo.)

Figures 1 and 2 show simple and complex habitat ambient niches where consistent dark lines running horizontally across the page represent a unique mixture of insect voices shown occupying several "bands" of a 20-10,000 Hertz frequency spectrum in Figure 1 and a 20-20kHz spectrum in Figure 2. The darker the line, the greater the amplitude in that particular range. The short lines toward the bottom of the page in Figure 1 represent the low voice of a *Zenaida* dove, a species of bird living in the Virgin Islands of St. Maarten. This sample was taken on Pic Paradis, a 400m mountain on the French side. The Figure 2 sample was recorded recently in Borneo. Again, the consistent horizontal lines running across the middle of the page represent insect voices. However, notice the Asian paradise flycatcher (*Terpsiphone paradisi*) vocalizations at both the left and right sides of the page. Its voice is made up of three harmonic components called formants. And they fit uniquely and exactly into several niches where there is little or no vocal energy represented by the light or white spaces. It turns out that in every unaltered habitat we have recorded, many birds, mammals and amphibians find and learn to vocalize in acoustical niches unimpeded by the voices of less mobile creatures such as near-ranging insects.

We first noticed this phenomenon while working in Africa in the early 80s. Many habitats have been recorded since. To obtain these recordings we would typically spend 500 hours on site to get 15 minutes of usable material... a ratio of 2,000:1. The long wait is due primarily to the introduction of human-induced mechanical noise(s) like chain saws (from 20 miles away), aircraft, motorized riverboats, etc. To date, our library consists of approximately 2,500 hours of material ... 15% of it from now-extinct habitats.

While recording species-specific creatures, we would often wait for up to 30 hours in one location for a desired event to take place. Out of boredom and because there was nothing else to do at the time, we began to record pure ambient sounds. When a bird sang or a mammal or

amphibian vocalized, the voices appeared to fit in relation to all of the natural sounds of the immediate environment in terms of frequency and prosody (rhythm). Over a number of years we would return to the same sites only to find, when the recordings were analyzed, that each place showed incredible bioacoustic consistency, much like we would expect to find from fingerprint matching. The bird, mammal and frog vocalizations we recorded all seemed to fit neatly into their respective niches. And the bio-acoustic niches from the same locations all remained the same (given time of year, day, and weather patterns). Having just begun to work in Indonesian rainforests, early analysis indicates similar results from each of the biomes we have visited and recorded.

While the audio bio-spectra of each location remain essentially constant, large habitats of the same region will show local variability and regional similarities, all at the same time. However, each area generates its own unique voiceprint and can be identified by sonogram. We find this to be particularly true where the density of living organisms is greater such as tropical rainforest habitats. As more creatures vie for acoustical space, the ability to clearly articulate a voice within that space is more critical to each species' survival. As would be expected, acoustical definition changes as we move away from the equator north or south to more temperate zones. In these habitats, creature voices and well-defined acoustical spaces are determined by more loosely tangible criteria.

If, as we are suggesting, the ambient sound of primary growth habitats functions much as a modern day orchestra with each creature voice occupying its own place on the environmental music staff relative to frequency, amplitude, timbre, and duration of sound, then there is a clear acoustical message being sent as to the biological health of these locations. Some people, believing that fragile environments can be continuously and endlessly developed, must begin to *listen*, as well as observe what changes are taking place. Developmental advocates suggest that if just small biological islands are preserved, that will be enough, especially for the development of eco-tourism. 'Life is too short not to get as much as we can out of it.' However, it has been shown in our own country from work done in North American national parks that species are becoming extinct and that they are doing so in an inverse relationship to the size and age of the parks and at an increasing rate. The smaller the park, the faster the decay. When we have tried to record in new stands of trees planted in the Olympic peninsula by Georgia-Pacific and other lumber companies, we have found a profound lack of bio-diversity evidenced first by the obvious monoculture of corn-rowed stands of fast-growing pines and very little supporting vegetation growing on the forest floor, but more so by the overwhelming silence. Compare these recordings with those of nearby healthy old-growth forests and the measurable differences are astounding.

Research continues on the issues suggested by this hypothesis. The study of acoustic ecology began in the late 70s and has just recently begun to be considered as a valuable tool for defining the health of both marine and terrestrial habitats around the world. Adding this information to the body of knowledge is important for many reasons not the least of which is rediscovery of a direct cultural link to our natural surroundings before they all disappear. For the past two centuries Western academics, writers, and artists have labored at some length to keep ourselves separated from the notion of "nature." The use of the very word, itself, sets us apart. It is interesting to note that no Native American word for "nature" exists in any language of the 500 nations. My wife, Katherine, and I have chosen not to use it to describe any of our work.

Natural orchestrations, the sounds of our unaltered temperate, tropical, arctic, desert and marine habitats, are becoming exceedingly rare and difficult to find. The keys to our musical past and the origins of complex intra-species connection can be learned from the acoustic output of these wonderful places. We are learning that the isolated voice of a song bird cannot give us very

much useful information. It is the acoustical fabric into which that song is woven that offers up an elixir of formidable intelligence that enlightens us about ourselves, our past, and the very creatures we have longed so earnestly to know. (April 2, 1993)

Bernard L. Krause, Wild Sanctuary Communications, 124 Ninth Ave., San Francisco, CA, 94118 USA.

Singing the World into Existence:

Paul Panhuysen and the Canary Grand Band [New CD]

This CD contains recordings which were made with canaries in 1990 and 1991. Most of the recordings feature a group of five birds, the Canary Grand Band, which performed for the first time in February 1990 at an exhibition of my work in the Fletch Bizzel theatre, Dortmund. A theatre presents performing actors. The canaries were the actors performing in the piece that I intended to put on. On the wall I mounted five cages in a row, each containing a bird, with a daylight lamp over each cage, a microphone inside and a contact mike attached to the cage floor.

Each of the signals from the mikes was manipulated separately in preamplified form through effect pedals (cf. rock groups), amplified and reproduced in the room via separate speakers. When the light and sound installation had been switched on it was time to start playing. It appeared that the canaries were quick on the uptake and that the musical possibilities offered greatly inspired them. The sound they produced reminded me of a tropical rain forest in a Hollywood movie. I was surprised by their response to the sound-effect equipment.

This made me decide to continue working with the birds in my studio, and to find out to what extent I might be capable of communicating and cooperating with them. The Canary Grand Band became my musical ensemble that summer. The canaries were my demanding musicians and I was their manager, sound technician and attendant. The Canary Grand Band gave several concerts and we played mostly in the studio, where most of the recordings were made.

My share in the music which arose there consisted in operating the mixing desk, varying the tuning of the sound-effect equipment and of the sound level. Afterwards I started looking for sound impulses which might inspire the birds. At this stage I dispensed with sound effects and electrical amplification altogether. The birds were particularly inspired by the acoustic instruments played by Akio Suzuki, as well as by my mechanical sound-sculptures, such as the Automatic Ukulele Orchestra. For an exhibition at the P.S.1 Museum in New York I installed twelve pentatonically tuned acoustic string instruments which were stimulated into vibration by electromagnets. This was accompanied by the continuous warbling of twelve canaries. During the concerts in the museum I played on long strings and the canaries would sing. At the last concert the birds sang for over half an hour. Their singing ended the exact moment that I finished my playing. Unfortunately that concert wasn't recorded.

Paul Panhuysen, text excerpted from his CD booklet. (Available from: HetApollohuis, Tongeirressestraat 81, 5613 DB Eindhoven, The Netherlands. Tel/fax (0)40-440393)

CORRESPONDENCE FROM OUR READERS

FROM ARGENTINA

I am a musician and music teacher in school and post secondary education. I have worked in the areas of Argentine folklore which, like many South American and African rhythms, has curious counter stresses in the accompanying instruments. This seems to contradict a vast area of European based music, including rock, and hence makes it difficult for people to understand. I have set music to several poems of J.R.R. Tolkien, comprising a large song cycle that I hope to record and perform sometime in the future. Recently I proposed a soundscape activity for an entire night in natural surroundings. It is based on some of the ideas in R. M. Schafer's "Princess of the Stars" and "Rha", and includes three dimensional dynamic perception of sounds, legends, rituals and other such things. I have not yet managed to get together a team or authorization for this piece, but we have done many experiments with sounds in natural surroundings. For example, moonlit auditory walks through a forest: we have experienced how some sounds acquire completely new significance and weight under such circumstances and how very slight sounds produce profound effects. These experiences trigger deep emotional responses and induce strong visual imagination among the participants who listen in silence and with eyes closed—I hope to continue with these experiments and eventually to produce a large scale event.

I am also interested in getting to know ways of improving schools acoustically. Here in Argentina (maybe it happens everywhere), schools are highly saturated with noises from playgrounds, where the building structures conspire against reducing the high amount of echoes and reverberation. I would be pleased to receive addresses of people who might know about this and information on how to cheaply improve the soundscapes of schools outside and inside, especially of individual classrooms. The economic factor is paramount as it is practically impossible to receive financial support for these types of projects, especially in public schools.

Andres Grimsditch, Sabatini 4565, 1678 Caseros, Argentina.

FROM SPAIN

I recently received information about the *Soundscape Newsletter* thanks to Claude Schryer and the *Experimental Musical Instruments* magazine. I have known about the World Soundscape Project's works for a long time, but I didn't know anything about the newsletter. I would like to subscribe to the newsletter and am interested in any kind of collaboration with other audio artists working with soundscapes.

I'm an entomologist and Professor of Ecology in the Dept. of Ecology at the Complutense University of Madrid. I have also been an active member of the International Cassette Network for many years. One of my main interests has always been the sound environment. Eight years ago I began recording soundscapes from all over the world for a long-term project which I call the 'Real Soundscape' series. I've got more than eighty hours of recordings from twenty countries on four continents. With these, I work in the studio to realize different kinds of audio works. My aim is not to give a sound chronicle, but to express my personal view on the features of soundscapes from different places and cultures by the end of the century. I have finished five works in this series. Three of them have already been released on cassette: "Sao Paulo/ Manaus" (1991), commissioned by the German Label 'Bizzarr'.; "O Parladoiro" (1992), commissioned by Zen & Cia Art Gallery; "Qal'at Abd'al-Salam" (1993).

These three works represent examples of my ways of working with soundscapes, from

soft mixing and assembling of pure soundscapes ("Sao Paulo/Manau") to heavy treatments of the sounds ("Qal'at Abd'al-Salam"). Also finished are two more works that will be released on cassette by Bizarr, with soundscapes from Budapest, Sofia and Vienna.

I'm working on 10 more soundworks within this 'Real Soundscapes' Series and hope to finish them in the next few months. I'm also planning to release a CD that brings together all the soundscapes I've been recording during the past eight years, as a sort of summary of the soundscapes I collected all over the world.

Francisco Lopez, Apartado 2542, 28080 Madrid, Spain.

FROM INDIA

I have just been initiated into the world of soundscape thanks to the workshop 'Soundscape Delhi' conducted by Ms. Hildegard Westerkamp. Since I am a student of architecture I am trying to explore the role of sound in architecture and vice versa, not only in the present but also what it was in the Indian past and what it can be in the future! Reading the translation of an ancient Indian text on town-planning, the Manasara, I found the following text:

While choosing a site for any kind of building activity, along with other considerations such as soil analysis, the sounds prevalent on the site were also an important consideration. Land which had the following natural sounds was considered beneficial—horse, elephant, bamboo, ocean, conch, veena (an Indian string instrument) and the sounds of all other animals that were harmonious with human vibrations.

Once the site was selected by the sthapati (architect), it was believed that the space should first be prepared for human habitation by requesting from the natural lifeforms and energies which occupy the place to accept their new owners. This process was a very gradual one : first, the sthapati spoke to the earth accompanied by auspicious music and chanting; next, the site was cleaned and seeds of various plants and cereals were planted for one season, after which domesticated animals such as cows, bulls, calves, etc. were brought to stay on the site. The sound of these animals was considered beneficial to the environment.

It was not until the earth and its prior inhabitants had become acquainted with these sounds, that the human being came to inhabit the site!

Mona Madan, ed. *jnana*, *Journal of Built Environment*
B-199/2 East of Kailash, New Delhi, 110065 India

Neckar Soundscape

Concert for Regional Train and Seven Boat Horns.

On May 1st 1993 the deep river valley of the Neckar, bent at Neckarsteinach not far from Heidelberg, Germany, is resounding with a train whistle and seven boat horns. Three to five thousand people witness this soundscape event, staged by landscape engineer Samuel J. Fleiner and Sophia A. Wagner. Imagine the Neckar promenade, the open-air restaurants and campgrounds packed with people enjoying the mild temperatures of this Saturday afternoon. Small brochures are distributed to the crowd, this time not pious treatises but information about the upcoming event. The newspapers of the Rhein-Neckar District, from Heilbronn to Heidelberg, have already informed the public ahead of time of what is to be expected on this day. And indeed, many seem to have come specially for this environmental concert. Among them are students from the University of Basel who are busy setting up a Kunstkopf (dummy head) microphone and a variety of other recording equipment on the boats and in the nearby forests.

The jumble of voices quiets down as the train approaches from Neckargemund and blows its whistle fervently, resounding in a wide curve above the river. A boat horn answers, a delighted Oh! escapes from the crowd and a ping pong theme develops between the seven anchored tug boats. The slopes of the valley reverberate with the horn sounds, dogs bark in excitement, the rumbles of a far-away thunderstorm appear, a freight train passes. Some people find the piece too long, having expected something quite different, something like a brass band on a river raft. Elderly people are moved by the boat horns, remembering old times. Nowadays these horns are heard rarely on the Neckar and never so abundantly as on this day. A passenger boat arrives with a toot, people disembark in great numbers, the wind picks up as the thunderstorm approaches and responds to the horn sounds with its thunderous voices. Microphones do not like wind and the recording exercises are running into trouble.

After twenty-five minutes the horn concert comes to an end and spontaneous applause from the promenade closes the event. A boat owner gives off a short blast and causes exhilaration. In the meantime the imminent thunderstorm has emptied the formerly crowded Neckar shores. The Kunstkopf on the opposite side of the river has already disappeared. I escape into the back of my car where I record the sound of heavy rain and the splashes of people running for cover. A blackbird is singing. –**Justin Winkler**

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Listening to the Desert

In March 1993 a group of students of the Geography Department, University of Basel, Switzerland, went on a Sahara field trip. This time the main subject was not erosion dynamics or arid landforms, but landscape aesthetics. Part of this phenomenological field exercise was the development of soundscape awareness. Some people think that desert means emptiness and indeed, some of the participants - even those who had been in the desert before - were skeptical about our soundscape goals: is the desert not simply devoid of sound? We returned with nine hours of tape recordings and experiences of a desert rich with colours, sounds and smells.

We crossed the Oasis of Iherer at the bottom of a deep canyon in the Fadnoun. This was truly a sonic paradise: frogs, the noise of a small waterfall, the sounds of birds, the wind rattling in the dry roofing of the zeriba. Hardly any cars. In the evening a Tindi event took place, the women sitting in a circle and singing for hours, darkness all around, and their sounds filling the courtyard. The call of a screech-owl somewhere high up in the rocks. We had arrived tired but when we returned to our zeriba at midnight we were refreshed, relaxed and wide awake.

Each of our twenty campfires in twenty different locations gave us a different sense of place: in dry rocks we heard the wind whistling in a sharp tone across the rock-paved plateau; in the dunes the wind was shuffling sand grains and creating thunderlike noises in a nearby sandstone bluff; in the oued plains we could hear the wind approaching with a crackling in the dry grass stalks; in the high mountains the wind grasped everything in and around the camp, playing with cheches, sleeping bags and mattresses... and of course with the campfire. Together with the very dry ground and the dry wood this dry desert wind created a fire of particular magnitude and intensity, speaking like a desert spirit.

The silence of the desert does not mean boredom for the ears. It allows tiny sounds to appear and, in fact, alerts your ears. I was struck by the thin voices of the desert birds. Are they

thin because they do not have to compete with many other birds or to endure much noise? Our own voices reached far, especially when there was little wind. Once I heard a Targia woman's voice along the oued valley calling someone's name. I recall how high and brilliant and at the same time effortless it sounded and how clearly it reverberated through the valley. In such moments an aural sensation of large distances is created and immediately after, the desert falls back into its spaceless silence—until the next event occurs somewhere in the depth of these surroundings: a donkey, a lorry, a dove, a clank, a footstep in the coarse sand of the oued.

The magic word "phonolith" appeared, the idea of a sounding stone. This differed from the dry and hollow cracking of the brittle granite or sandstone. These stones sound only for those who want to hear them. - So this becomes a creative sometimes dangerous geography, encouraging us to strike rocks, to listen to the sounds they make if we break them, perhaps even causing a thunderous avalanche in a remote place...

On the way back while changing planes in Paris-Orly, I heard an artificial nightingale singing. This made me angry. The desert may be cruel, but at least it is honest, acoustically.

Justin Winkler, Projektgruppe Akustische Landschaft Basel, Switzerland.

(Photo: Peter Grant) *Hildegard Westerkamp recording Camelvoice in Rajasthan, India*

From the Delhi Sound Journal

Hildi Westerkamp

When my friend Peter and I arrive at the Imperial Hotel at 4 a.m. we are told that there is going to be some construction work outside of our room in the morning—but not to worry—it is really nothing. However construction noise is the last thing we need after twenty hours of travel. We ask them to give us another room "Oh no not necessary no noise, no noise, no problem". We laugh that hysterical laugh that comes from pure exhaustion and have just enough energy to insist on another, quieter room. Okay, okay, Acha.

The next morning we wake up to high screeches from small green parrots, to car horns and a general traffic roar from Janpath, the main road near the hotel. Later, when we walk through the hotel garden we see signs apologizing for the inconvenience and disturbances due to construction work. We can see that the terrace outside of the restaurant is being renovated and the hotel walls fixed and painted.

We do not hear any construction noise however—"oh no, no noise, no noise, no problem". Instead we hear the voices of a dozen or so men working, their footsteps, the clinking of hammers against stone tiles, buckets clanking, the swishing of paint brushes, ladders being moved, men whistling and singing. And the car horns and loud motors from Janpath pervade the hotel garden and its "construction site".

Sitting in the restaurant of the hotel one day I watch a scene as the workmen take a break on the lawn. One man is lying on his stomach on the grass and another one is walking with his bare feet on the man's back, carefully treading along his spine, massaging and pressing on the sore points of his back. I am amazed by the physical closeness between these men. It warms my heart and touches me. But I shiver as the restaurant's muzak drizzles its cool drool all over me.

A month later, or was it two, the terrace is finished and we can eat outside accompanied by the car horn symphony on Janpath and the general sound of the Delhi traffic that roars behind the high walls of the exotic hotel garden.

Inside, the entire hotel is carpeted. Not once during our month-long stay do we hear a vacuum cleaner. Every day men move through the rooms and corridors crouched down, sweeping the carpets with their hand brooms. Swish - swush - sewish - swoosh - swish - sh - sh - sawash - swish - swoo - oosh...

Hildegard Westerkamp

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