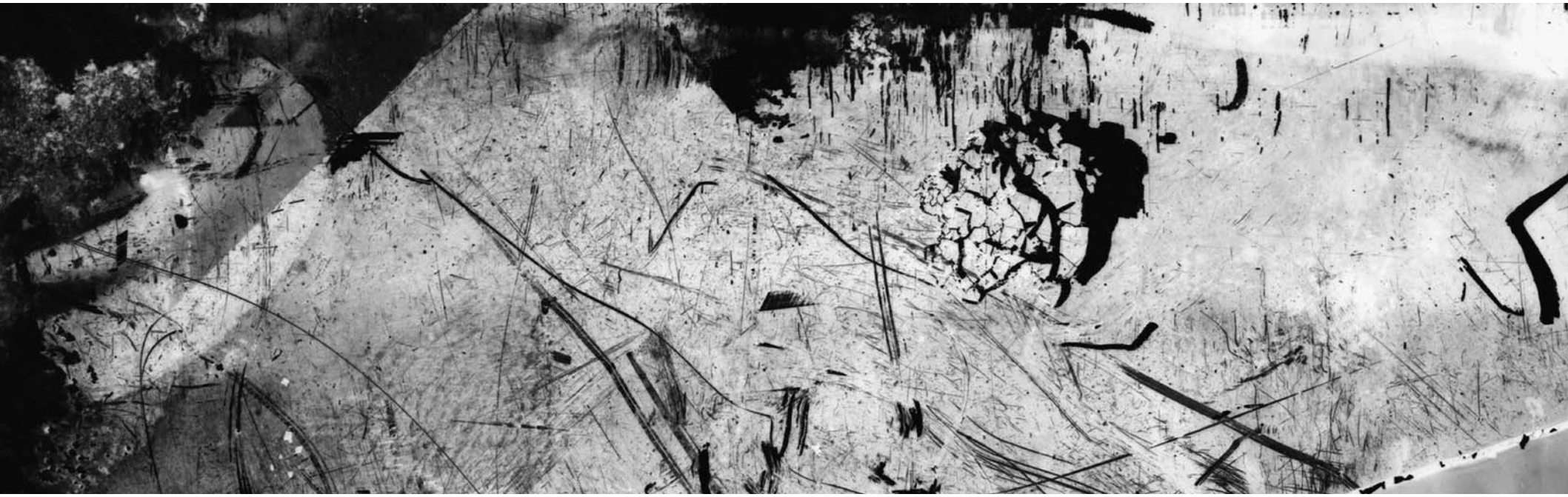
Field Notes

Second Issue • Listening, Documenting



Gabi Schaffner

The Madness of the Documentarist

Translation by Gabi Schaffner & Tobias Fischer

Photo: Peter Bretz

Gabi Schaffner, born 1965 in Offenbach on the Main; works as a traveling artist, writer, photographer and publisher within the field of “autopeotic systems”; first audio works were done in 2002. Since 2006/07 she has also produced radio shows for *Deutschlandradio Kultur* and *Hessischer Rundfunk*.

Any documentarist must either be mad or go mad while persuing her work. It might be all very well to embark on a journey, but carrying along technical devices for the purpose of documentation is sometimes presumptuous and can lead one into the quagmire of self-humiliation, too. Not that it would be a question of falsehood, which is inevitably attached to any object of objectivity. But isn’t documentation, generally speaking, a kind of theft? Isn’t it like stealing from time? And, what’s more, isn’t it done in a more than awkward fashion considering the value of that which is documented?

With regards to the total inadequacy of human perception, the question arises as to whether or not the obsessive pursuit of a particular goal must automatically lead to insanity. But a documentarist must turn mad just at the moment he or she realizes that something wonderful is happening… but the videotape is at its end, the pencil broken, the aperture wrongly adjusted or simply the battery is dead. It has happened to many, but few have put it in writing: the failure of the ethnographer right in the middle of things. Compared to the total triumph that results from having captured

something absolutely unique; something precious; the authentic copy of a stretch of time. The DNA of reality, a sequence of real-time. Holy real-time, mantra of the field recordists. Lost! Lost!

Technical Failure #1: The Handsome Young Man

The minidisk recorder failed for the first time on a Sunday morning, 7th of July, on the occasion of a bus trip into a neighbouring village (which had been organized for journalists and interested individuals by the festival board). The bus stopped in front of a vestry equipped with a wooden stage and rows of chairs. The backdrop of the stage was adorned with a Finnish landscape painting in sparkling green and blue; cloudlets in the sky and a little brook. We were introduced to: the village choir, the music teacher (being prominently seated next to the piano), some little nippers with violin and accordion at a tender age ranging from five to seven years, and a handful of young talents from the vicinity. Now there was an exception, a boy of maybe 16 years who, when you just looked at him, caused something in your heart to tremble. This, as far as I could see, was due to the delicate features and lines around his mouth which was straight but still the most mobile part of his face. His accordion-playing was without question first class, and consisted of only two short pieces. Each single tone, each note appeared as an innermost expression in his face and only after that were they emitted as sound from the instrument. Naturally, such an instance happens much too fast to perceive and name it consciously – only by memory can one slow it down and retrieve it in fragments. I had put the broken machine aside and was totally absorbed in this much too short contemplation. His face remained, while he played, perfectly naked and sensitive, but so deeply immersed as to be unreachable.

Technical Failure #2: Smokesauna, 9th July 2006

The gloomiest moment of my Finnish documentary mission came shortly after I'd acquired a treasure in the form of a gleaming new Sony minidisk recorder from the *Kansanmusikki-instituti* in Kaustinen. I was unable to activate the reload-function of the battery. No electricity supply whatsoever was to be found, neither at the sauna nor in its immediate surroundings. I shared this pitchdark room with some girls and two men. One has to know that the acoustics of the sauna in Pauanne is very special. The building is made from wood and stone,

the damp air and especially the directly adjoining architecture of the pool hall next to us – they all combine and melt into a unified entity that allows the faintest tones to retain echo and sound, warmth, colour, resonance and depth. You are listening to: the rubbing of skin onto wood, the crunching of pebbles, the crackling and moaning of the wooden beams. Its acoustic twin track: the creaking, opening and closing of the massive door, the loud hiss of the *löyly* followed by languorous moans and sighs, the soft murmur and occasional laughter, the swoosh of water-buckets being refilled, the sound of water on skin and, nearly inaudibly, on hair, the slippery sound of soap, the splashing of water on pebbles, and in between: the rhythmic, twittering, rustling noise of the *vihtas* (birch twigs) on wet bodies. Now a soft hum rises like a breeze that seems to move around the room, a humming that gets louder and divides itself into two or three girl's voices. You can hear their voices, but the girls themselves are invisible, their knees, calves and ankles being vaguely perceptible.

The melody is a simple improvisation being doubled and added to, with strands that intertwine like long tendrils and which – still in all their simplicity – develop more and more bewildering patterns. Again the voices rise and fall back into silence. Then there is a moment of laughter and silence, and another woman starts to hum a new melody. Now it is four girls singing and I am nearly crying. The two men join in a no less artful manner and I sit there, painfully tortured by all this beauty entering my mind and ears. A beauty that is fatally and forever beyond retrieval and documentation and lost for the world. I was not happy when the singing ended. I was shattered by the awareness of my technical dependency. For days, I grumbled and my brain whispered sardonic insults even in my dreams. If I had known what follies I would further commit with this machine in the course of my journey, I would have thrown it into the pool.

Deleted #2

Every day around noon, a dance orchestra rehearsed on its small wooden platform in front of the main stage of the Kaustinen festival. The weather was somewhat rainy and there was less hustle and bustle than usual. Later in the afternoon, Finnish men and women would be circling around in step with the tunes of tango, waltz and polka. The wooden planks under their feet would silently creak and one would just barely be able

to hear the shuffling sound of their soles in direct proximity of the floor.

But now, at a distance of approximately 10 meters, a hardly 18-year old punk, head bent down, had seated himself with his guitar on a little stonewall. In front of him was the empty case, next to him his girlfriend picking at her nails. I placed myself a meter away and switched on the recorder. A twofold, stylistically ambivalent track unfolded of which one part belonged to the rehearsing orchestra. On the other side, there was the punk with his guitar, not bad at all… he was squeaking Finnish lyrics in a bolshy way and taking the guitar to its and his limits. It would have been better though, if he had managed to get more than just one and a half verses together… perhaps not right away stunning but probably better for his career anyway. Even so, I cherished the fact that he had dared to enter into a fiddler and accordion atmosphere, with or without hope of earning himself a beer. The girlfriend tapped her booted foot, but after 10 minutes the boy had played all pieces that he knew until the second and half refrain and put the guitar aside. I tossed him a coin into the case and went away. I was very happy with this recording but only until the moment when I accidentally deleted it.

Deleted #1: Eero Peltonen Sings the *Song of the Happy Squirrel*

Did I talk about the aura of technical disaster in the beginning? Well, now my head is again veiled by a dark cloud, quite similar to a mosquito-swarm-cloud and I am being heavily pestered by the vile, derisive hum of failure in my ears. Before my inner eye: visualizations of finger tips on wrong buttons, the downfall of technical devices from tables and rocks, malfunctions of in- and outputs, and in between, the gaping black gorge of forgetfulness.

Therefore, it is now time for *Laulu oravasta* – the "Song of the Happy Squirrel." Eero has translated the words for me, therefore I know what it is about: A squirrel sits in its cove high up in a tree and it looks down onto the world. But all it sees is death and murder and other evil things happening on earth. The squirrel is very frightened, but then it looks another way. Right before its nose, the tree stretches a big branch out into the open air, green and green with rustling leaves. Just like a beautiful big flag, thinks the squirrel and continues watching the swaying branch. By now, the whole tree has started to sway, and the squirrel feels warm and comfy. The trees rocks the squirrel in its cove like a mother rocks

her baby to sleep. All the trees of the forest move with the wind and the whispering of the leaves makes the forest sound like a kantele: *Metsän kantele* – the kantele of the forest. At the end, it looks up through all the leaves and branches into the sky. There, birds are floating in a huge flock through the blue, singing. And the squirrel feels very happy.

The song is a famous poem by Aleksis Kivi, the first Finnish writer who dared in 1870 to publish a novel in his mother tongue (and not in the formerly prescribed official language that was Swedish). Eero says, of course everybody would talk about Kivi's novel „The Seven Brothers," but his songs would also be very beautiful. The squirrel song has a rather simple melody; at the end of each verse, Eero's voice comes down to a deep bariton, vibrating on a single tone and then starting anew. The squirrel song ends very low somewhere in the bass notes – and that was the moment I started to cry. Heart of wax, perhaps, who could tell.

Deleted #4

» *Hey, do you speak English?*
No.

» *Hm, I guess you do though.*
Only a bit.

» *I have a question about this tractor race here.*
I don't know.

» *Well, where do all these drivers come from?*

» *From Finland?*
Yes, Finland.

» *And who invented these competitions anyway? Are they a finnish thing?*
I don't know.

» *Well, did the Finns invent the tractor races?*
No. I guess the Americans.

» *Aha. Is there a prize to be won?*
Oh yes! Lots of money.

» *And the drivers, are they famous somehow... I mean do the people know them from TV or so?*
Could be, yes. I think some of them are famous.

» *Well, thank you.*

(Subsequent notes of a failed interview with a teenager during the „Full Pull“ tractor championship at Kalajoki, 15th July 2006.)

Deleted #5: A Yoik. Inari, 20th July 2006

» *Would you sing a yoik for me?*
Don’t know. What will you do with the recording?

» *It’s a private recording. It help me remembering things more accurately, after the journey.*
Ok. But I am not such a good singer of yoiks. My voice is nothing special. There are others, more professional yoik singers.

» *That’s ok.*
This is my own yoik, and it’s not very long. And I don’t want to have it used in public.

» *Ok. I won’t do that. At which occasions do you sing it?*
I sing when I am travelling alone. Mostly in wintertime, riding the sleigh together with my son.

» *Do you sing other songs too on these occasions?*
Yes. Often. But this yoik is my personal yoik.

» *Did you learn it somehow?*
No… When I was a child, I listened to my mother yoiking, but this one is different. It just came to my mind and since then it is mine.

Marja-Leena sings. She sits with a straightened back, hand folded in her lap. Her yoik is indeed not very long, a sequence of modulated notes, rising and falling with a little swerve in its melodic pattern. It is like a scent in the air, which one will follow for a couple of breaths only to find out that one has lost it already. Marja-Leena looks at me.

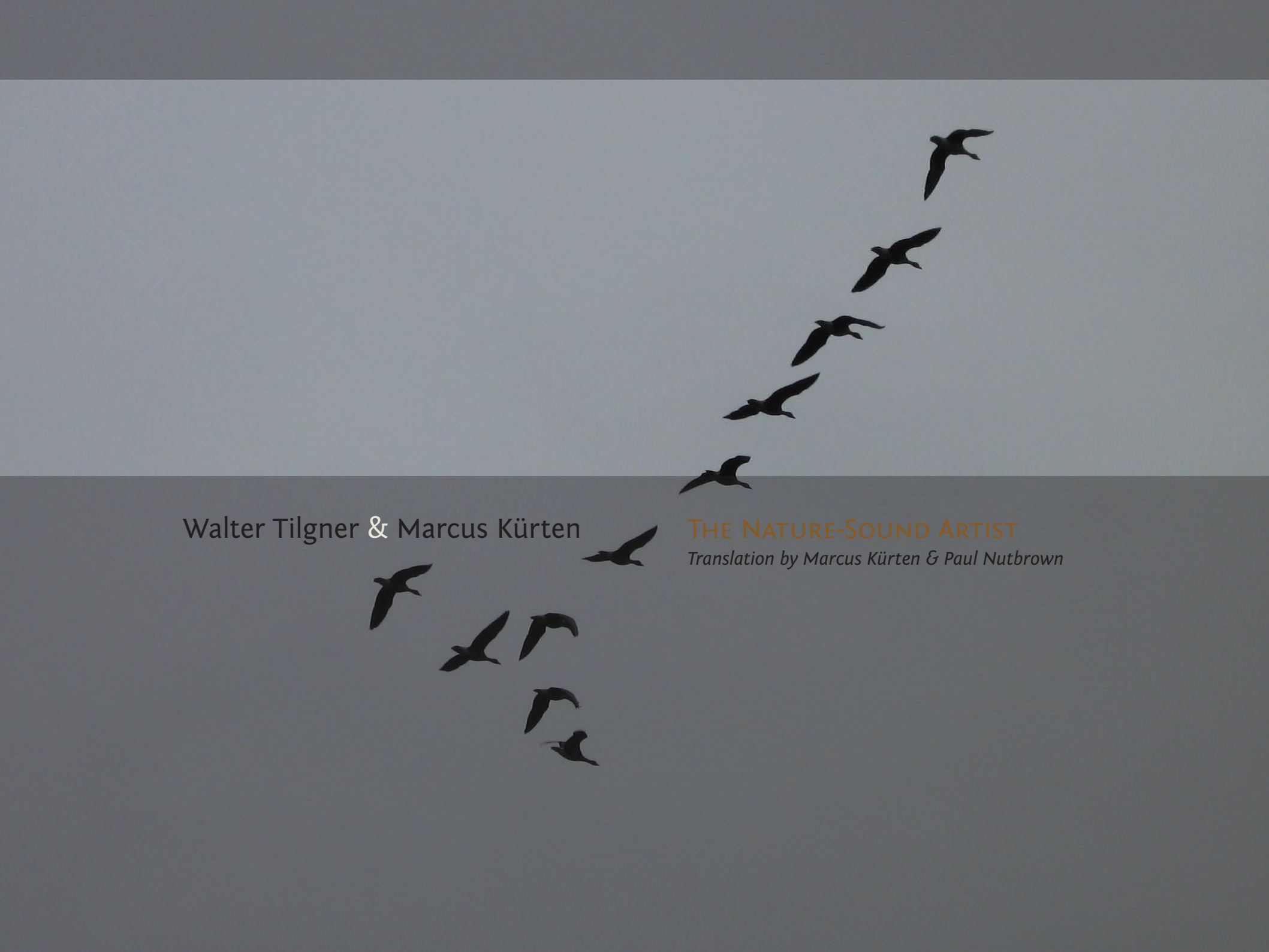
» *Thank you. This was beautiful.*
You’re welcome. But there other artists, really.

» *I know. But I rather enjoy collecting from… normal persons.*

I don’t recall how it happened that I deleted Marja-Leena’s yoik from the MD. I had listened to it again the

same evening via headphones. A yoik seems to be made only for one's own voice and for no one else's. That's why Marja-Leena's firm and somewhat deep timbre permeates every single note. Yoiking often reminds one of yodelling, but it is different, because not only the high notes are used and neither exclusively the head voice. By listening to a person yoiking one can tell from which region and even which family she or he comes from. And there are infinitely subtle twists of mood. A yoik can be the yoik of one person and can be sung altogether differently. It may express joy or love or sorrow. The pattern can be varied but it still belongs to an individual. A yoik resembles a name. No wonder that they are only reluctantly revealed to strangers.

GS



Walter Tilgner & Marcus Kürten

The Nature-Sound Artist

Translation by Marcus Kürten & Paul Nutbrown

Photo: Heidrun Tilgner

Walter Tilgner was born 1934 in Olomouc on the March. After the banishment from Moravia the son of a master carpenter raised on a farm near Hünfeld. In the fifties Tilgner studied zoology and botany in Frankfurt on the Main and worked until his retirement at the Natural History Museum at Lake Constance. The environmentalist and well-known nature photographer, and since 1999 honorary member of the *Soundscape Forum Basel*, is recording "Nature Sound Images" for more than 35 years.

The recording of the complex structured repertoires of our feathered friends is an insightful partial discipline of bio-acoustic.

Walter Tilgners "Natural Sound Images" are far more as pure sound documents as they concern answering typical questions, taxonomy or pattern recognition.

With his artificial-head recordings Tilgner broke with the traditional ornithological identification recordings and has shown the forest in its totality.

Thus conveying from these takes only minor knowledge about ecological and social functions of a forest and our position towards nature.

They encourage us furthermore to explore the environment away from our daily routine and to become an enthusiastic listener as Tilgner, relates to his "Nature Sound Images."

Marcus Kürten, born 1974 in the south of the Bergisches Land, is documenting the surroundings of the Rhineland with his field recordings.

Photo: Anja Brunsfeld

MARCUS KÜRTEN: *Do you remember the first recording experience during your childhood in Moravia, or later in Hünfeld, where you spent your youth? In Hessian Hünfeld you started early into the surrounding forests of Anterior Rhön. Did you make your first recording experiences there?*

WALTER TILGNER: The most impressive sound experience from my childhood and youth I cannot remember, apart from the air-raid warnings, the noise of bombers and the shell fire of anti-aircraft batteries. My first recording experience was 1959/60, at the forestry office in Frankfurt on the Main, where I was working during my studies. A film was made there about the Frankfurt Forest named *"Nicht nur der Urwald ruft"* (Not Only the Jungle Calls). The sound recordings were made with a MAIHAK, an earlier model of the NAGRA. Even then it was my wish to own such a recorder, to catch animal sounds, bird calls and natural moods of the maltreated forest near the metropolis Frankfurt to be used by the public relation office. The wish to own such a recorder was achived very late in life, that is to say 1972.

MK: *Field Recordings are mostly full of life at the time of their creation. Do you have any preferences concerning nature sounds? Does a particular sound give you a special force of attraction?*
WT: Every landscape, whether forest, lake or sea has it own fascinating sound. Certain recordings and "Sound Images" are especially close to my heart, because when listening to them later, I'm remembering special nature experiences.

MK: *How much do you regret man-made noise in you recordings, or do you accept this fact as part of an authentic recording?*
WT: The choice of recording locations depends in the first place, on the biotope, the forest, the landscape. For example Lake Neusiedl – Seewinkel, the March meadows. With a bit of luck and patience it is possible to make recordings with hardly or no traffic noise. Sometimes I archive the original recording with that kind of noise for documentation.

MK: *Have you seen a change in the bird chants within the last decades? Do the birds start earlier with their calls because it has fundamentally become lighter through human settlements, or have certain species of birds given*

Ornithological Station; Isle of Bislich, Xanten • Photo: Marcus Kürten

up their natural habitats? To what extent have these changes effected your work?
WT: Birds do not start to sing earlier, apart perhaps in the metropolises. For this aspect I do not have the experience. I am always recording in certain areas, for example near to where I am living in Allensbach, Lake

Constance. There has been a change in the last decades. Certain bird species are becoming fewer or disappear and new ones arrive. The sound alters as well. These changes are documented, influencing my work however to no great extent.

MK: *Natural recordings sound as through no great effort is needed that appears the absence of the recordist is chiefly responsible for the authenticity of the recording. You have to decide the time and the location. Do you have a pre-recording concept?*
WT: Each recording is exactly planned. The recording of a certain countryside, forest or lake district do not exist by chance. The characteristic sound of a forest at a special time is the aim through observations, the study of literature and many inspections beforehand without recording equipment.

MK: *What demands do you make on yourself and the recording production? Do you give yourself a time limit, when you are recording the atmosphere of a certain place?*
WT: The produced recording has to be as natural as possible, that the listener feels back again where the microphone stood and that one can experience the recording procedure again. To one's enjoyment! The duration of a recording is mostly limited through the tape length and battery power.

MK: *In 1983 you began to record with the digital and portable recording system SONY PCM F1, a digital audio-processor, and a SONY SL F1 Betamax recorder with a Neumann K 81i artificial-head in order to record the forest entirety, and not with a conventional shotgun microphone with a parabolic dish. With this recording method you became a pioneer against your will. For "Master Singers" you have used the Neumann KU 81i artificial-head microphone, the successor KU 100 as well as a Denon DR 80 P DAT recorder. For "Bluethroat – Bird of a Thousand Voices" you also have used a Sennheiser MKH 30. Made the further development of recording equipment and microphones your work easier or harder? Which kind of recording equipment do you use at the present time?*
WT: The development of compact recording equipment made my work easier. At the moment I am using a Sound Devices 722 and a Neumann KU 100. DAT recorders are scarcely used.

MK: *How do you feel emotionally regarding a potential recording location? What do you take back in everyday life from the rich sound of the forests?*
WT: I hear and see consciously. Also the recording loca-

Sunrise; Lake Höhenfeld, Cologne • Photo: Anja Brunsfeld

tions are chosen with the intention, especially with observations without recording equipment and only with binoculars.

MK: *You are documenting the surprisingly acoustic variety of the forest with your recordings as opposed to the ornithologists with their pure and selected bird calls recordings. How significant is the recording work you do in collaboration with your wife?*

WT: The recording of "Nature Sound Images" is one of my favorite hobbies, as such no institutions, as for example organizations of environmental protection and conservation are supporting this. Above all, my wife and I enjoy that so many people have great pleasure with our recordings. We open the eyes and ears of our listeners to detect single bird calls with pleasure on a forest walk. The cognition and recognition of bird calls is a sense of achievement for free. The awareness to preserve and save our nature environment, and thus also the sound characteristics, has cofirmed to us by numerous messages. A broadcasting corporation holds an extensive collection of our recordings and artists use our "Nature Sound Images" for their works. Very much to our delight.

MK: *Animal voices and nature sounds, for example the whispering of leaves, are well-known for every listener and ambient noise without a doubt gives a psychological effect. The Vienna State Opera is using sound material recorded by you for its scenic sound setting. Are your works also part of education in biology or for pedagogical purposes?*

WT: I do not know the extent of utilization, but I have received several positive acknowledgments. A lot of therapists are using our recordings, some of them custom made, to support the therapy. For my wife and me, all this is more important and gives us far more delight, than the academic documentation.

MK: *Do you have unreleased curios in your archive, or do you miss on the other hand a special species call, a weather phenomenon or any other sound event in your present collection, because there was no chance for a recording up until now and are you worried about that fact?*
WT: Just a small part of my recordings have been released on CD. Maybe there are curios in my present archive, like the sound of the death's head hawkmoth (*Acherontia atropos*). Particular wishes for new nature sound images I have a lot. But I am not worried about a missed sound event, because I heard it and it is saved in my mind and there will be a repetition eventually.

MK: *How was the response to the "Sylvan Concert"-release on Wergo, especially the recordings for this release, generally in professional circles and by the listeners? The result of the collaboration with* Wergo/Schott Music International *amounts to a discography of thirteen releases. This is a constant partnership and has to be no equal in the fast moving music industry.*
WT: From the beginning (1983) there is a great fascination about the natural-sounding recordings, because of the difference to the ornithological identification recordings and the academic observation recordings so far. In 1985 Wergo has released the "Sylvan Concert." The first CD of digital nature sound images, and there came up some imitations in its day. Several TV stations and broadcasts, here and in foreign countries, where reporting about the release and the artificial-head recordings, also print media. The music publisher Wergo released some of my recordings in the "Music of Our Time" series of the label "Natural Sound" on LP, MC and CD. The credit belongs to Wergo for the great success, that scarcely is not possible in this form by any other publisher.

MK: *The numbers of interested listeners and also of the practicing field recordists have an upward tendency. What kind of possibilities and chances do they have?*
WT: From the moment on recording equipment, for example digital harddisc-recorder, is quite cheaper and is available in a large amount and it became easier for recordists and nature observers to record in a good quality, as it was possible a few years ago. Above all it

could succeed with this equipment to dive into the beautiful secret of bird calls and come to know them better similar to the preparation and collecting of butterflies at one time. All that we know and understand helps us to save and protect our nature environment. Primarily for our own well-being.

MK: *With your recordings you are documenting the places of their origin for the present and the future. Albeit to file your recordings archival is not adequate to your intention and operating principle. Your nature recordings invite us to listen and linger and they are not canned sounds. They teach us thoughtfulness and to have great respect for the environment. I cannot imagine better "reference recordings."*
WT: I do not consider my "Nature Sound Images" as a documentation for the posterity. But I would convey what brought so much joy to me and my wife Heidrun for such a long time and even today. The forest as a sound experience, the nature and the re-imagination at home. These experiences helped us and help us to take difficult situations in life more lightly. To give other people the reason of this kind of joyousness became an enthusiastic vocation to us.

MK & WT – September 2008

Discography of Walter Tilgner

Wergo/Natural Sound

- *Sylvan Concert* (SM 90012)
- *Nightingale* (SM 90022)
- *Spring Concert* (SM 90032)
- *Birds Wedding* (SM 90042)
- *Bluethroat – Bird of a Thousand Voices* (SM 90052)
- *Whispering Forest* (SM 90062)
- *Cranes* (SM 90072)
- *Sunrise* (SM 90082)
- *King of the Forest – The Red Deer Rut* (SM 90092)
- *Master Singers* (SM 90102)
- *Forest Blackbird* (SM 90112)
- *Winter at Lake Constance* (SM 90122)
- *Fascinating Springtime* (SM 90132)

On compilations (Selection)

- "Sylvan Afternoon" on *The Dreamers of Gaia* (Earth Ear; EE 9012)
- "Day, Woodpecker" on *Rhythm* (Gruenrekorder & Cherry Music; Gruen 050)

Stefan Militzer

Tones, Sounds & Noises

Part 2: Policy of Sound

Translation by Daniel Schiller & Marlene Nagel

Photo: Stefan Militzer

Stefan Militzer studied philosophy in Dresden, Tübingen and Colchester. Ph.D. from the University of Frankfurt on the Main. He is working as an freelance author and teacher. Artistic collaborations in the fields of performance art and theatre.

In the first part of this text[1] I tried to elaborate the difference between language, music and noise. Along with the sounds of language, I argued, also noise can transport information. The noises recorded in field recordings are recognised without difficulty as they point to events, practices and situations and the sound's sense can easily overcome – what often only seems to be – cultural barriers. For instance, a listener can connect to wedding rituals from another continent through the semantics of noise even if he or she has not attended the ceremony itself. For the acquisition of a foreign concept, the known and unknown cultural practices have to partially overlap; but at the same time the new concept's horizon of sound should somehow resemble familiar noises of life. These semantic codes are much easier to learn than the linguistic semantics of languages. Even a person who has never been to Asia will know how to interpret the noises of a Yemenite wedding. Resembling phonetic language in how it transports quite distinctive information, the material of a field recording is also very similar to

1 "A Small Typology of Sound," published in *Field Notes #1*.

music in how it conveys this sense across cultures. After having compared semantic structures of noises, tones and sound in the first part of the text, I would now like to analyse what noise has got to do with policy.

I. I would like to start with an answer to the question what policy actually is. Even though there is a nearly unmanageable amount of scientific political concepts, most of them can be brought down to the meaning of the Ancient Greek words *polis* (the city), *polites* (the city's inhabitants) and *politeia* (the way the inhabitants organised their life together in the city). In other words the community and its collective actions, especially its self-organisation, is what policy focuses on. The Greek concepts were followed by the Ancient Rome's clear distinction between own (*privatum*) and common (*publicum*). Since then the term policy has been understood as everything related to public – and therefore common – matters of all people (*res publica*).

What is the political sense of sound? Let me start with music. At first music seems to be completely free of any political reference: its formal qualities are overwhelming. Of course, these can effectively be used for political goals. An example from German history would be a comparison between a Prussian military march from the 18th century and a family music composition from the Biedermeier time played in the urban bourgeoisie's sitting rooms one hundred years later. Once a text is linked to a tone, an even bigger political effect is possible. Nevertheless, the sheer connection of tones and noises is in itself no public matter, nothing political. Or perhaps it is? Somebody thinking of music as composing, so to speak capturing tones on paper, in other words, somebody searching for the nature of music in scores, shall think that music and policy have as much in common as doing the laundry and casting a ballot. Just as only specific laundry can be done – business suits, boilersuits, wool pullovers, etc. – music is not such an easy matter, as it first appears to be. For obvious reasons the sound of music cannot be separated from the conditions of its creation or its performance, even if, at first, they only seem to be part of the music's environment (and not of the music itself). Composing as well as performing music needs people to act. This also holds true for difficult cases: a serial, randomly generated compilation needs somebody to connect the random generator, the sequencer and the printer and then to activate them. Pre-produced electronic music can only be played, when there is somebody to press "Play." Technology has not

only changed and partially renewed the reproducibility, but also the channels of artistic production. Nonetheless, people have not been made redundant – even though some musical genres like to reduce the human input to a minimum.

II. Against this background we have to repeat the question: is music non-political? Does this mean that, for instance, the technique of a chromatic, rhythmic composition has got nothing to do with policy? A pointless question of everyday life: What have memos got to do with policy? Absolutely nothing. Unless they contain the government's new budget, the real name of "Deep Throat" or the number of North Koreans starving every month. Being political is, as a matter of fact, no formal quality of music. Music is only political, when it takes on functions referring to how people live together, how they organise their public matters and how they take legally biding decisions. It is made characteristic of music, when the latter is performed in a public place or when it has to serve a specific purpose. An evident example is Beethoven's *Eroica,* which, due to a small change in the dedication, includes both, the greatness and the downfall of Napoleon Bonaparte. When artists such as Neil Young or the *Dixie Chicks* make songs against their government's policy, the link between music and policy becomes even more evident.

The (textual) content of music can be as different as the content of sentences made up in a language. In order to understand the political content of sound it is best to simply ignore the explicit political or non-political content of language and music. Doing so leaves us with the before mentioned contexts of *creation* and *articulation* of sound. From this point of view, how political are language and music? A language can simply be spoken. Neither equipment nor special training is required to do so. Therefore language inhabits a strong egalitarian quality. However, this only applies for people being able to speak a language. The most frequent mother tongue is Mandarin with nearly 900 million speakers, followed by Spanish with about 350 million native speakers. As a matter of fact, language is always tied to a community. The person not speaking the language is left out. And the person learning a language has to deal with the native speakers of that language. Their way of thinking, their history and their myths and legends have influenced their language and very often the linguistic and cultural aspects of a language can only be understood together. In order to learn both, a lot of time and dis-

cipline is required as well as talent and money to pay language classes or a stay abroad. Thus, language leaves out everybody who grew up with a different mother tongue. Furthermore, the social and political inequality amongst those, who could learn the language, persists, because again the advantage lies with the wealthy and talented. So much for equality (and fairness) of language.

When it comes to music, the conditions are similar. Music is always the product of a long and, in most cases, a complex history; this applies to folk music, classic European music but also to such a relatively young genre as jazz. Whoever tried to understand the art and genius of John Coltrane, Brandford Marsalis or Tony Lakatos knows how complex the history of jazz-saxophones is. This holds certainly true for Christian sacred music, from its first peak with Johannes Ockeghem to Dieter Schnebel. (Both examples from two defined fields of western music history; an almost endless list of examples from Africa and Asia could be added). Art has always been made and consumed by elites (despite objections by Marcel Duchamp and Joseph Beuys). The reason is education, without which art is less accessible. It is common knowledge that, especially in Germany, educational opportunities are widely influenced by the social background and environment of a person as well as by the financial situation of their parents. People with a certain social background, from a social class with more or less political importance, consume a certain music genre. Adding to that are the costs of concert tickets. Many people are excluded from music, its perception and its performance, because of their educational background on the one hand and their lack of income on the other. If policy is about taking part in the collective and public life of a society though, it lies in the nature of music to develop political influence through (social and cognitive) mechanisms of exclusion. Like language, music reinforces given structures of inequality (unless this inequality is outbalanced by a sensible education and culture policy). The conditions of music creation are even more restrictive. Composing needs more practise and devotion than learning how to speak. Yet again studying composition is an even greater privilege compared to simply making time to study the basics of music history. Having talent or promoting talent should not be labelled as unequal, but the political dimension of who can make their composition available to the public and who cannot, should not be ignored.

III. Politically disadvantaged groups are more or less excluded from an effective use of language and from the act of creating music or the pleasure of listening to it. Both categories of sound have elitist structures and deepen political disparity, because the personal level of education, which is so often fought for in society, influences the capacity of taking pleasure in it. Once again, as in the field of semantics, *field recordings* break down given restrictions. Field recordings can be made with relatively cheap equipment. They do not depend on the access to higher education or record studios. The places, where noises are recorded, are not excluding socially disadvantaged groups. Far from it: Any harbour or textile worker, anybody on a bus or walking down the street can document noises in a much better way than directors, who lead a life in between the office and the company car. Not only the conditions of making field recordings but also their content make way for a larger political equality than music and language. After all, noises are often recorded at public places. They therefore have a political dimension and are part of the public space. Yet they are also closely linked to the public, when the recorded events are private. The semantic value can easily be turned from private into public: not the person associated with an elite will have his or her memories reactivated, but the person who listens carefully to its environment, forests and rivers, places and streets. Through field recordings and provided the listeners are willing to do so, people can form a group to share their experiences. By the means of the field recordings they are able to create a common public, larger and with better access than linguistic and musical communities.

Who responds to a record and cherishes it, does not depend on the political influence of the listeners, but on their personal life experiences, their curiousness and their passion for music. I call this the democratic quality of field recordings. It is enhanced by the fact that, through field recordings, the listeners can experience the sound of places that they might never be able to visit. That is not only a quality of a field recording but also of photography – both record media can easily complement one another. Their authenticity is not as important as their prospect of recording moments, atmospheres, noises and images and making them accessible, so that people can visualise a place they did not know. The new experiences and discoveries inspire people and make them “see” their world in a different way.

The field recording's initial conditions of recording and listening are much more democratic than the political dimensions of linguistic and musical sound: a policy is democratic, when a community includes as many people as possible (instead of excluding them). A field recording brings down social and cultural differences und inequalities, which characterise the structures of music and language. By replacing experiences of a social group with personal experiences, field recordings undermine existing listening patterns. They even give access to the noises of places that listeners might have been excluded from. *Field recordings* oppose collective and social marginalisation of music and language, their listeners are to be free of social and national barriers and privileges. Thereby field recordings convey new insights and experiences, which listeners may use for their political work. An intensive and strong circle that has an impact on society.

SM

Yannick Dauby

Frogtales

Photo: Tsai Wan-Shuen

Yannick Dauby (born 1974 in France, currently living in Taiwan) is a sound artist focusing on the listening to the environment.

Bombina variegata **(Yellow-Bellied Toad)**

Some years ago, my friend Marc Namblard made me listening to a marvelous sound he recorded: a group of Yellow-Bellied Toads singing. These round and smooth calls were so surprising that I was dreaming of recording such things. They live nearby ponds and brooks, sometimes in forest, usually in ruts. Like most of the creatures living in water areas, they are victims of habitat loss or degradation. So I was waiting for an opportunity... Then, last Spring, I was going to work in a village, in Auvergne, in the center of France. I learned from naturalist Emmanuel Boitier that the species was present in large number in some part of the region and especially nearby a former quarry. When I arrived there I was amazed by the beauty of this small location: orchids, marsh crickets, mole-crickets, a large diversity of birds. And sometimes some jumps in the water would indicate the presence of amphibians. I waited until the night, then wandering on the paths, I finally heard the beloved songs. The mating call of the Yellow-Bellied Toad is very soft. One could hear it not until a distance of 30 meters.

So in order to record correctly, I had to put the microphones very very close. Putting the microphone stand at the correct position needs patience: after disturbing these shy animals (even with a lot of cares), one must wait 5–10 minutes until they sing again. Then, coming back 5 minutes later, and listening to the sounds, I found out that the toads were behind the microphone and not in front!

After a few tries, one or two planes, a motorcycle and several cars, the toads would finally give me their songs. I kept monitoring the toads behind a tree, lying on the sandy path, watching the starry night during one or two hours until I felt asleep...

Polyphony of a Location

For a nature sound recordist, all animal voices are good to be harvested. For example the chattering discourse of a passerine bird met in the bush, the sonic tapestry of a morning chorus in a reverberant forest, the unique scream of a mammal that must not be missed or the continuous whispers of a meadow's insects. But amphibians are a specific topic: it is much more about picking up the polyphony of a location.

Anuran songs[1] have a surprising diversity (just forget the "croack" onomatopœia): purring of the Common Frog, tiny flute notes of the Midwife Toad, mooing of the unwanted Bullfrog or even bird calls for Swinhoe's Frog. The common point amongst these songs is the importance of their localization: one can hear them on precise sites, the reproduction locations. Recording the amphibians is, in some way, the documentation of the soundscape of these places, at a certain moment of time in the year.

If one isolated individual's song is quite simple, collective singing spread interlacing patterns, create complex structures, sound moirés effects. Sounds bounce back and forth, like question-answer games, and create rhythmic sequences. Some individuals amongst the chorus are trying to distinguish themselves by shifting slightly their calls, which gives a sensation of acceleration and slowing down that could remind some human music such as indonesian gamelan or minimalism, or even the concerts produced by the code-bar readers in supermarkets or automatic gates in the metro stations in Taipei.

1 *Anura* is the order of the tail-less amphibians, aka toads, frogs and treefrogs.

Rana swinhoana (Swinhoe's Frog) • Photo: Yannick Dauby

Recording frogs can be tricky: while some species are amazingly noisy (so noisy that in some places, inhabitants would be happy to erase their presence), some are producing the tiniest songs. In fact, some of these songs are not meant to be heard in air, but below the surface of the water. Hydrophones are then required. Most of the field recordists prefer abandoning their microphone close to the pond, in order not to disturb them. But another exciting method is to hold boompoles and to keep still amongst the frogs. I remember the smile of Marc, when his boots were filled with the cold water, with Agile Frogs copulating around him and just below his mikes…

***Rhacophorus moltrechti* (Moltrecht's Treefrog)**

I was hiking alone in the low-altitude mountains of the South of Taiwan. On a small road, coming back from a cicadas recording session, I noticed from far away an unusual voice. Some very sweet sounds, rolling the tongue like with Italian language, this animal would make short sequences on two notes: *Ri-Ri Rrru-Rrru-Rrru*.

When I came close enough to make a recording, the animal stopped after three or four calls. Then I waited one long year without knowing nothing more about this sound. Despite my lack of knowledge, I was still confident that the animal I recorded was a frog. I already had the CD by Yang Yi-Ru, so far the only audio publication devoted to the amphibians in Taiwan, but I was not able to recognize anything. Until I contacted and received an email

from Yang Yi-Ru. She taught me a bit about this beautiful treefrog: before organizing their voice into harmonious and low volume choruses, the males call each others in distance. And these two kind of sounds are very different. I must confess that I would have loved to discover a new frog species, but I was quite happy to be released from this unidentified sound that was haunting me.

Rana latouchii

One of the first frogs I've heard in Taiwan. A delicate and funny song. When I put the headphones on a friend's ears, she shouted: "Door-opening frogs!" Coming from the childhood, she remembered her grand-father noticing that the call of this frog is very close to the sound of wooden doors creaking in old houses.

Recording this frog can be a very entertaining moment. They're not so shy compared to some other species, so the microphone can be placed so close that it looks like more interview than nature recording. And then, the frog will start by singing very very short atoms of sounds. And progressively accelerate and multiply them. Until the sounds become quasi-continuous, not unlike granular synthesis. And if their is a group singing, the

Rana latouchii • *Photo: Franck Chardès*

listeners monitoring through headphones imagines tiny bubbles bursting everywhere...

Another friend in Taipei has a quite nature-friendly garden. One day he noticed a frog in a bucket. So he put a bigger one close: the next day there was several frogs. Then he built a small pond: the *Rana latouchii* imme-

diately inhabit it. And until now, this lucky friend has some of the cutest ambient music everyday.

Portrait of a Scientist and Frog Enthusiast: Yang Yi-Ru

She's the Master-Jedi of Taiwanese amphibian fauna. Through her publications (many books and a CD) and her ecological and biological researches, she has a very important role about the conservation of frogs in the country. When I first met her, I was surprised by the way she record their sounds: she just waits. There are cars, wind or other acoustic disturbances? Just wait the next time. Her favorite conditions for recordings are amphitheaters. Just seek for a location where frogs are spread into an arc (like the turn of a small road) and put the microphone at the center, you would have a very nice stereophonic *frogscape*. What if they stop singing because of one's presence? Just stop moving. Frogs are very sensitive to foot steps because of vibration perception through bones and skin. Waiting is the key. Maybe 10 minutes, maybe 30... Because she spent so much time in the field, listening to these creatures, her listening ability became quite specialized: of course identification of the males of the 32 species of Taiwan's frogs is immediate. But with the help of the smallest variations in their songs, she could tell you about one frog's age, its current behavior (calling, chorusing, distress, mating by mistake with another male), its health condition (the volume and the pitch of the sound), but also if the frog is originated from the eastern or western part of Taiwan!

Bufo bankorensis

This is a big one that is often met on mountain paths in Taiwan. Its song sounds a bit like our European Common Toad. But my favorite recording of this toad is more unusual. I wanted to listen to the sounds of small invertebrates in a very muddy pond. I attached my home-made hydrophone to a bamboo stick and immersed the whole in the water. Suddenly a huge crowd of tadpoles gathered around the hydrophone and began to eat the thin dust on the bamboo stick. The hydrophone acted as a contact microphone and the suction of the tadpoles produce a huge chorus of crunching sounds...

A Few References

Songs of the Frogs of Taiwan, Vol. 1 | Mid-2009, Kalerne Editions released the first part of an audio inventory of Taiwanese amphibian fauna. These recordings are not only

Hylarana guentheri (R.I.P.) • *Photo: Yannick Dauby*

audio documents for natural history aficionados, but propose also an invitation to the delicacy of the sounds of nature in Taiwan.

Phonographies Batraciennes | The French organization Sonatura released at the beginning of 2008 a compilation

Tadpoles (Rhacophorus prasinatus) • *Photo: Yannick Dauby*

devoted to amphibians. Curated by Yannick Dauby and the brothers Marc and Olivier Namblard, it is an audio plea for the (preservation of the) habitats of these animals.

YD

Continuative Links

http://kalerne.net/
Projects, texts and sounds by Yannick Dauby and friends.

http://promeneurecoutant.unblog.fr/
Marc Namblard, nature sound recordist and sound artist.

http://taiwannature.canalblog.com/
Franck Chardès, nature photograph in Taiwan.

http://www.froghome.com.tw/
The indispensable website by the top-specialist of Taiwan's amphibians, Yang Yi-Ru.

http://amphibiaweb.org/
An excellent resource site about amphibians.

Bufo bankorensis • Photo: Yannick Dauby

Lin Chi-Wei

2 Stories about Silence
2 Stories about Noise

Translation by Lin Chi-Wei

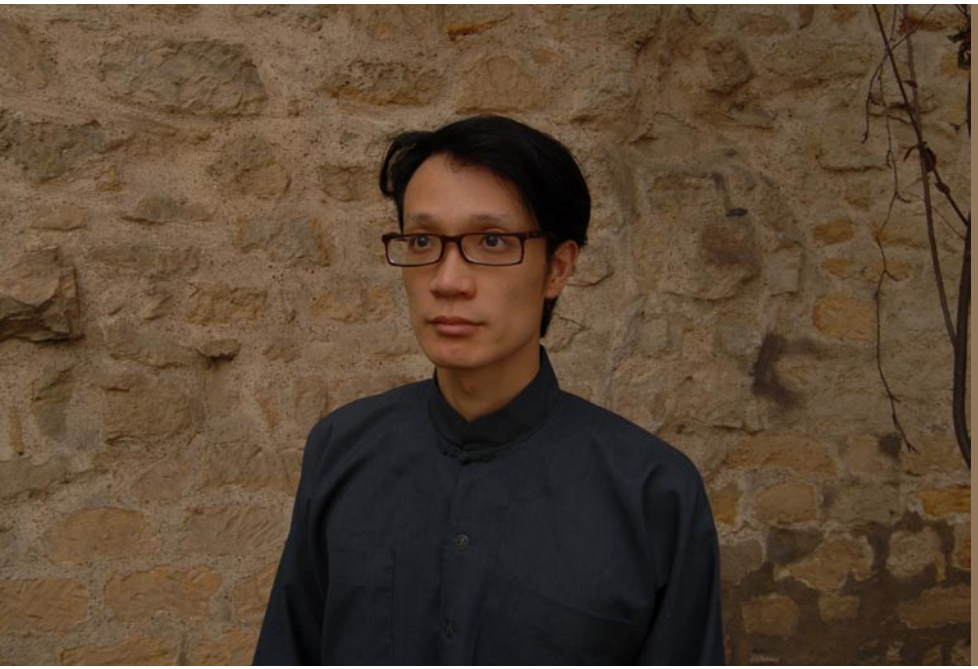


Photo: Xu Ya-Zhu

Lin Chi-Wei (* 1971 in Taipei), works and lives in Beiging/ Taipei since 2008. Founding member of *Zero and Sound Liberation Organization* (1992–2000); 1995 Curator of "Taipei Broken Life" festival; 1994 Master study of cultural anthropology on the issue of temple architecture, taoism ritual and music (NIA); 2000 Media Art study in *Studio National des Arts Contemporains*; 2003 Responsible of the research project "100 Years of Sound Art"; 2006 Artist residency in Paris. Recent research projects: 1.) Sound art in 20th century; book release in 2009. 2.) "Philosophies and Practices of Sound in China."

Texts selected by Lin Chi-Wei and revised by Alex Geddie for the research project and the book of Chinese Sound Art.

Da-Tong Monk's Words[1]

A disciple: *How does a Guching*[2] *sound without a single string?*
Master Da-Tong: The stringless Guching is wonderful.

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1 *Gu-Zuen-Su-Yu-Lu*. Editor: Zhe Zang (around 12th and 13th Century).

2 *Guching* – an ancient chinese instrument.

Disciple: *Could Master play it for us?*
Master Da-Tong: There is no sound.

Second Talk

A disciple: *What is the song which it's own creation has never happened?*[3]
Master Da-Tong: Nobody can sing it.
Disciple: *What if somebody actually sings it?*
Master Da-Tong: It is created.

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3 Word-for-word: *What is the song of Ajati?*

Tian Zi-Fang[4]

Confucius once came to pay a visit to a hermit, Wen-Bo-Zue-Zi, without even saying a word to him. A disciple of Confucius, Zi-Lu, apparently confused, asked his master: *"I know you've been waiting to see Wen-Bo-Zue-Zi for a long time. Now that you see him, you have not a single word to say to him. Why is that?"* Confucius said: *"This man – when I see him with my own eyes and realize that he exists with Dao, there is no place for me to utter a sound."*

Meat Made Orchestra[5]

Lee Kwang-Yuen, a senior officer of the late Zhou dynasty[6], had an extremely difficult and intolerant nature. In his official life, he could not do without extorting confessions from criminals using a diverse set of tortures he designed himself.

A single day without torture would simply depress the officer. Finally, he moved his personal office next to the grindhouse in order to be close to the flogging and screaming sound that he adored, once calling it "a meat made orchestra[7]."

Pan Jin-Lien's Invitation of Mid-Day Love-Making in the Orchid Bath[8]

Man and woman leave their embroidery frame for the orchid bath to enjoy the pleasure of fish in the water.[9]

After a while in the bath, Shimen Chin is excited and lowers the woman's body to the bath board. Holding the woman's foot in his hand, then raising it high, bouncing up and down like boiling water, two or three thousand thrusts, impossible to count, the sound is like crab feet marching over the muddy land. Afraid of the descending top-knot of her dressed hair, the woman supports the cloud of her hair with one hand, the other hand holding the bath rail, the cry of swallows and orioles emanating from her indescribable tongue.

4 Author: Chuang Zhou (369–286 BC).

5 *The Times of Ten Kingdoms*. Author: Wu Ren-Chen (1631–1684).

6 10th century BC.

7 Word-for-word: *A whole set of percussion and wind instruments*.

8 From *Jin Ping Mei*. Autor: Shao-Shao-Shen (um 1547–1596).

9 *Sexual pleasure* – a Chinese expression.

What a battle scene!

Watch!

As the troubled flower bath ripples its waves, a bluish-green curtain is raised high under the descending autumn cloud. The young man's emotions flowing as he demonstrates his romantic talents. The beauty in her great pleasure, trying to do whatever she can.

Pap Pap Tap Tap the noise is made,
Pang Pang Pap Pap the sound becomes a mass,
Hop Hop Dap Dap couldn't make it stop,
Lang Lang Jee Jee couldn't keep it up.

One pole, the boat in reverse current, her bouncing jade belly. Another boatman holding tight to his helm with Jin-Lien[10] in his arm. Mud and water could not be separated. The slow, exhausted rain cloud no longer distinct.

How free is the love-making of the phoenix in the embroidered curtain, how it is like the pleasure of the love in the orchid bath!

A while later, Shimen Chin ejaculates and finally puts an end to this mid-day battle.

LCW

10 *Jin-Lien* – the woman's name.

Andreas Bick

Listening is Making Sense

Translation by Nicholas Grindell

Photo: miroe

Andreas Bick, born in 1964 in Marl, Germany, writes music for films and radio plays. Based on a long-standing interest in rhythmic processes in nature and everyday life, he has also made a series of sound compositions for various broadcasters. He has been awarded the *Prix Ars Acustica,* the *Karl Sczuka Prize,* and the *Phonurgia Nova Prize.*

Speech, music and noise all reach our ears in the form of sound. In spite of this, we have grown used to considering them as separate spheres. Overcoming this separation results in a kind of listening that integrates sensual and cognitive perception: listening to the city as though it was music, to music as though it was speech, and to speech as though it was some kind of noise. These different kinds of sound each fulfill two functions: they transmit information and they have aesthetic value, registered by our senses as an experience ranging from painful to pleasurable. In the following, I would like to try to approach the phenomenon of sound from various angles, concluding with a look at field recording as an artistic strategy in which this integrated kind of listening plays a special role. But I will begin by looking for a definition of sound, an issue in which the question of a sound's location is particularly important.

Sound as Event

What is sound? Acoustic science gives the answer that a sound is triggered by the movement or vibration of a

sound source, creating longitudinal pressure waves in a surrounding medium that spread in a wave-like motion. This medium is usually air, but it can also be water, helium, metal or any other sound conductor. Such an understanding of the phenomenon of sound depends crucially on the medium and on the prevailing conditions of pressure and temperature. The sound itself – its volume, pitch and timbre – is determined by these external factors. As land creatures, we humans have become used to perceiving sound via the air, usually somewhere close to sea level at a moderate temperature. But this is actually just one of many ways sound can travel. Due to the importance of this link between a sound and its surrounding medium in judging that sound, many have come to accept the wave view, according to which sound is equated with sound waves and their behaviour in a medium. This permits the explanation of many acoustic phenomena – the Doppler effect, sound cancellations, echoes – that derive from the movement of sound sources or the interference and reflection of sound waves. According to this theory, the answer to the question of where exactly a sound is located is: in the medium.

In 1999, Robert Pasnau contradicted this medium theory, pointing out that in our everyday perception, we continue to identify sounds with their source.[1] We localize sounds where they originate and we do not think of them as moving through a medium or being dispositions of the medium itself. If our senses are not constantly deceiving us, then the wave view must be false. Pasnau argued that sound is actually a property of the object, a quality as peculiar to the sounding body as its colour. At first glance, this seems to make sense, as key acoustic properties of a sound are determined by the physical properties of the object that produces it. Consequently, sound is identical with the vibration of a sounding body and is a characteristic of this object. Following this view, the location of a sound is always the sound source and not the medium.

Here too, however, objections can be formulated that cast doubt on this **property view.** The argument that we perceive sounds in a localized way only applies to the medium of air; due to the higher speed of sound in water, divers, for example, can no longer pinpoint sounds in space, they appear to be coming from all around, from all directions. If we base our thinking about sound on

1 Pasnau, Robert. 1999. “What Is Sound?” In: *Philosophical Quarterly*. Vol. 49, No. 196, 309–324.

our own mode of perception, our conclusions will be subject to our own preferences in the choice of medium, thus overlooking the fact that sound behaves differently in different mediums. This applies above all to cases where there is no medium, as in a vacuum, in which it is widely accepted that no sound can be created. The property theory must fail, since it claims that sounds are a property of sound sources, thus also existing in a vacuum. As Casey O'Callaghan[2] points out, not only is sound in a vacuum impossible to perceive, and thus not provable by experiments, but there is also a fundamental absence of the conditions for the existence of sounds and the development of acoustic properties.

Where is the sound if not in the medium and not in the sound source? So far, we know that the sound properties of an object depend on the specific properties of the surrounding medium: when the medium changes, the sound changes with it. Rather than conceiving of sound purely as a property of sounding bodies, we must always think of it in relation to the surrounding medium. In his book sounds and several essays,[3] Casey O'Callaghan takes a third approach to describing sound in terms of cognitive theory. His **event view** is based on the assumption that sound waves transmit information about sounds, but are not identical with sounds. Instead, sound waves constitute a stimulus to audition and are the result of events that occur when objects and sounding bodies interact with a surrounding medium. For O'Callaghan, sounds are "particular individuals" which have a duration and which differ from other sounds by specific sound properties. This idea of sounds as events corresponds to what we know about our auditory perception, about hearing.[4]

Sound as an Auditory Object

We constantly scan our surroundings for acoustic information. Our ears cannot be shut, our sense of hearing is always on receive. All that we hear is initially shapeless noise – flat, without spatial depth, not localised. From the day we are born, we learn to single out individual sounds from this acoustic chaos and to pinpoint them in space.

2 Casey O'Callaghan in "The Argument from Vacuums" (PDF).

3 For example: "Sounds and Events" (PDF) or "Constructing a Theory of Sounds" (PDF).

4 A good overview of the various theories on sound can be found on the *Stanford Encyclopedia of Philosophy* website.

Soon, we are able to identify specific sounds with specific objects and to recognize them. To achieve this, our brains refer to mental representations with which what we hear is constantly compared. In the historical development of our species, this ability to deduce a sound's source in a matter of seconds and to react accordingly was of vital importance, a matter of life and death.

A distinction is generally made between hearing and listening: hearing is attributed a passive role, while listening involves the active processing of acoustic stimuli with the help of cognitive operations. Another model might distinguish between acoustic and auditory processing of information. Acoustic perception is the first stage in processing sound signals, during which signals are registered and roughly categorised, but not subjected to any further analysis. Even at this stage, however, meaning is attributed to stimuli and particular behaviour can be triggered. The auditory perception of the second stage is where a more differentiated analysis of the acoustic message takes place, bringing a large number of processes to bear: identification of sounds, segregation of the sound mix, cognitive processing, checking against long- and short-term memory, interpretation, evaluation, and emotional reactions to what has been heard. Albert Bregman calls this process of perception in two stages *auditory scene analysis*.[5]

How is it that our sense of hearing is capable of reconstructing the surrounding reality purely on the basis of information derived from overlapping pressure fluctuations in the air? To clarify what the auditory system does, Bregman makes a comparison with seeing: It is as if what is taking place on a lake – boats passing, people jumping into the water, etc. – were to be measured with the help of two channels dug up from the shoreline and which fill with water from the lake. A handkerchief fixed across each channel would be moved by the waves that reach the shore and flow up the channel. On the basis of nothing but the movement of these handkerchiefs, the task would be to ascertain the number of boats passing, their distance and direction, whether someone is jumping into the water, etc. – all without looking at the lake. The auditory system is capable of this.[6]

Let us imagine our acoustic environment as a neural spectrogram. The aim of auditory scene analysis is to create a

5 Described in detail in his epic book *Auditory Scene Analysis*.

6 Bregman 1990, pp. 5–6.

separate description of every object in this environment. According to Bregman, sounds are the result of "happenings," and he calls the mental representation of such a happening an "auditory stream." This stream can consist of several sounds perceived by the listener as a single event (someone talking, someone playing the piano, a dog barking, etc.) or it can consist of a single sound. Perception is a permanent process of constructing mental representations, and an auditory stream is one stage in this process.

An auditory scene – i.e. the diffuse sound mix that reaches our ears in everyday life – consists of such auditory streams, overlapping in time and space. Out of this, our perceptual apparatus constructs auditory objects by grouping incoming sound waves and attributing them to sound sources. The brain performs these distinctions on the basis of sound properties such as pitch, timbre and loudness. During this process, our ear appears to be occupied above all with the localization of sound sources. It is possible to correctly perceive an auditory object, but not to be able to correctly localise its source. The auditory object is not identical with the object by which the sound is generated.[7]

In some cases, however, the auditory objects we perceive contain sounds that do not reach our ear as physical sound waves at all – as highlighted by the case of acoustic illusions. One way our brain constructs auditory objects is by assessing their overtone content. In certain cases, this may suggest a fundamental tone that is not actually present. Our brain creates this tone by deduction from the overtone spectrum.[8] A related effect associated with combination tones (also known as the *Tartini effect*) is used by organ builders to create deep tones not otherwise possible in a limited space due to the excessive size of the pipes required. Two organ pipes generate a combination tone that results from the difference in frequency between the two source tones.[9] The pipe-organ illusion shows that there is a difference between genuine perception and auditory experience; the latter also includes the above-mentioned acoustic illusions as well as tinnitus and other acoustic hallucina-

7 This is the reason for many acoustic illusions, e.g. the ventriloquist effect and the McGurk effect.

8 Such tones are called "missing fundamentals." On the telephone, we hear voices with more deep tones than are actually transmitted by the receiver. In sound technology, similar effects are used to suggest a larger bass range in small loudspeakers.

9 Discussed in detail in Matthew Nudd's essay "Auditory Perception and Sounds" (PDF).

tions, not to mention psychological factors and neuronal disorders.

Our senses are active information processing systems that allow us, from birth, to draw conclusions about the outside world even without cognitive processing operations. The capacity for auditory scene analysis seems to be innate and forms the basis for all other associated cognitive processing operations. The path from hearing to listening, from acoustic to auditory information processing, begins when we assign meanings to noises and establish semantic connections between them. The perception and processing of sounds is the first step on the path to linguistic competence and musicality. *"Listening is making sense."*[10]

Sound as Sign

When a baby perceives the voice of its mother, it not only associates this voice with its location and particular timbre in order to recognize it among many other voices, but it also assigns to it the meaning of protection, security and source of food. The sound of the mother's voice is transformed into a sign for an entire range of emotional and physical needs. To this are added other sounds, which are linked to other semantic content. In this process, auditory scene analysis helps to highlight important signals against the background of disturbing noise and to tell speech apart from music and other sounds. From the noises of spoken language, the child learns to separate out specific sound signs, to recognize them, and to assign meaning to them.

The association of a sound sign or word with a specific meaning in language is arbitrary; any other sign would do just as well.[11] In the case of non-linguistic sounds, on the contrary, there is a firm link to the sound source; a sound or noise always refers precisely to the event that triggered it. The sound of a water drop is always a sign of the event that we associate with this sound: a drop of water falls and makes a sound when it lands. Higher-order meanings only arise when the simple meaning of an auditory object is enriched by an additional context, as in the case of signals with a communicative function

10 This is a quote from Stephen Handel's book *Listening: An Introduction to the Perception of Auditory Events*.

11 In semiotics, this corresponds to the relationship between *signifier* and *signified*.

anchored in everyday life. Sounds can also acquire symbolic meaning via religious or ritual practices; the cultural and social context inscribes itself into the meaning of the sound sign in the long term and determines its reception independently of its specific auditory form.

But sounds also acquire meaning based on their spatial distance from the receiver. One way of describing this spatial distance is by distinguishing between figure, ground and field.[12] This denotes not only a distinction between sounds that are near, at medium distance and far away, but also the relationship between the listener and the sound source. **Figure** stands for the most important sound or group of sounds in a given setting which a listener relates to or interacts with. This may be an interlocutor, the melody of a piece of music, or a sound that stands out from the everyday soundscape. Although **ground** sounds still belong to the listener's social context, they are often perceived in passing, only registered when they suddenly disappear. And finally, **field** represents a broader cultural context in which *figure* and *ground* are positioned. Taken together, these three levels constitute an acoustic frame of reference within which sounds are assigned varying degrees of importance. The sounds on the levels of "figure" are signals that we listen to, whereas the sounds on the levels of "ground" and "field" are heard but not accorded any great importance.

This model of an acoustic frame of reference describes not only the reality of our everyday world, but also the virtual locations of sounds created for the listener in various media and art forms. The perceived distance between the listener and these media sounds has no need to reflect reality; here, the levels of *figure, ground* and *field* are shifted and switched in order to convey the desired message. Since the beginning of sound recording, sound has become malleable material in the hands of artists and media producers who use the positioning of microphones and technical manipulation to detach sounds from their original contexts and combine them into new structures. Art forms that emerged as a direct result of the possibility of storing and processing sounds include Musique Concrète, electronic music, sound design in films, radio plays and the related genre of acoustic art, to name just a few. Finally, as mentioned above, I want to take a look

12 This follows the terminology of Murray Schafer; one could also use other terms like "immediate, support, background" or "foreground, mid-ground, background." For natural environments, Chris Watson used the terms "species, habitat, atmosphere."

at a genre that is characterized by a purist approach to sound, which often crosses the borders between language, music and noise, and which is concerned above all with situating sound in space: field recording.[13]

Sound and Field

As a technical term, "field recording" stands primarily for recordings that are made outside the studio. Today, it is associated above all with artistic strategies that draw our attention to sounds within a human or natural environment.[14]

13 This term was chosen in the 1930s for the documentation of unknown musical cultures and scientifically interesting animal sounds "in the field." Initially, the emphasis was on the archiving of recorded documents. Only later did field recordings also become interesting to sound artists. Of central importance in this context is Murray Schafer with his *World Soundscape Project* that took nature as the subject of "soundscape compositions."

14 There is also the term "phonography" which differs from "field recording" in its interest in leaving the original recordings unedited and – by analogy to photography – seeing them as direct, unaltered reproduction of an acoustic reality. The extent to which a recording is manipulated by the act of choosing and "framing" a specific segment remains a controversial issue. Whatever term we use, the main point here is the artistic intention.

Rather than isolating them from the outside world by bringing them into a studio, the sound artist goes to where the sounds occur. These sounds are usually unpredictable and uncontrollable, but above all they cannot be separated from their acoustic setting. This sound field is the event horizon within which sound artists move and from which they make their own selection by their choice of technical means and recording perspective. In principle, the practice of field recording is nothing more than a type of auditory scene analysis. The headphones amplify this process by enlarging the audible environment and making details stand out that would otherwise be missed (in the above-mentioned model: attention can be shifted from *figure* to *ground* or *field*). The sound artist gives listeners access to a personal interpretation of the environment, letting them merge with his/her perspective.

Field recordings focus attention on sound itself – as material, as the actual object of hearing. The texture and grain, the tactile quality of the found sound events becomes the artistic material. The intention of most artists working with field recordings will be to draw the listener's attention not to a sound's source, but to the peculiar qualities of the sound itself. It is not

about making faithful acoustic portrayals of events or soundscapes for documentary purposes; instead, the sounds are listened to for their own sake, as sounds. Ideally, the referential quality of the sound, the direct link to its source object, dissolves and becomes, in our perception, an autonomous auditory object. But this doesn't happen on its own: it requires a number of artistic interventions described in the following using the terms *perspective, context* and *composition*. These interrelated approaches have a shaping influence on outstanding works in field recording.

Perspective | The selection of audio equipment and the positioning of the microphones in the field have such an influence on sound recordings that they constitute an artistic statement in their own right. In recent years, field recordings have made an important contribution to sharpening our awareness of sounds other than those transmitted by the medium of air. Examples include recordings with contact microphones (e.g. on wires, bridges and other resonating bodies) and the use of underwater microphones. Such approaches highlight the above-mentioned dependency of our sense of sound on the surrounding medium (rather than the recording medium). But recordings made with conventional microphones can also capture special sound properties if they are placed in unusual locations. One example would be recordings made inside bottles or pipes, allowing an appreciation of their specific resonance.[15] The microphones do not have to remain in a fixed position and moving them within the sound environment can also be used to create a distinctive perspective. Many sound artists work with hidden microphones to avoid provoking an unwanted reaction.

Context | Field recording means that environmental sounds are conserved and played back at another time and place, separating them from their original context. But this is true of all recordings and is thus not a distinctive feature. Working with context means departing from a linear model of communication (the artist sends an acoustic message that is deciphered by the recipient) and questioning, commenting and reflecting on the listener's relationship to his/her social and natural environment.[16] In such an approach, the listener's

15 Examples include the work of Toshiya Tsunoda or Sam Auinger and Bruce Odland.

16 Barry Truax writes about this in his essay "Sound in Context" (PDF).

involvement in his/her acoustic environment becomes part of the artist's practice. One such shifting of context involves playing back sounds in an environment and subjecting them to further processing. Jacob Kierkegaard made recordings in abandoned houses near Chernobyl and then played them back in the same rooms over and over, in the style of Alvin Lucier's *I Am Sitting in a Room,* until the resonance of the space emerged. The fact that Kierkegaard made these recordings at a location that was quite literally "charged" plays an important role in the reception of the work. Another way of creating new contexts is seen in *Buildings [New York]* by Francisco Lopez and *air.ratio* by Eric La Casa, works that deal exclusively with the noises made by ventilation systems, publishing them in almost lexical form on CD. In the context of a conventional recording situation, the sounds presented here would be unwanted background noise; the change of perspective and the way they are arranged on the recording medium transform them into an object for acoustic study.

Composition | There is a sliding scale of compositional interventions in field recording, ranging from "neutral" use of ambient sounds through to simulations of acoustic environments that are created by montage and studio processing. The larger the compositional element, the closer field recording comes to other areas of electroacoustic music. Field recording is a technical procedure which is open to all sides and which can be integrated into other musical genres. Perhaps the greatest similarity between the sound artists working with field recording is their tendency to let themselves be guided by the found sounds, rather than approaching the compositional task with preconceived expectations. The artist composes and is composed at the same time. Field recording does not stand for a chain of sounds that release a single, one-way message from the god-like artist-author; it is a multi-dimensional space, a fabric of sound quotations that draws on the sound repertoire of the world.

With these artistic strategies, it is possible to make sounds and their meanings seem ambiguous and to leave the listener unsure of their origins. The formerly stable link between a sound sign and its source, the sound's clearly referential character, is eroded. This calls for active listeners who do not wish to have their expectations confirmed, but who bring with them a certain curiosity and openness to the world. The vagueness of the recordings makes space for subjective interpreta-

tions, challenging the listener's familiar auditory experience and knowledge of the world. What we hear may not always make any actual sense, but we do become aware of a fundamental requirement of our sense of hearing: we have no choice but to constantly construct meaning.

AB – Nov/Dec 2008

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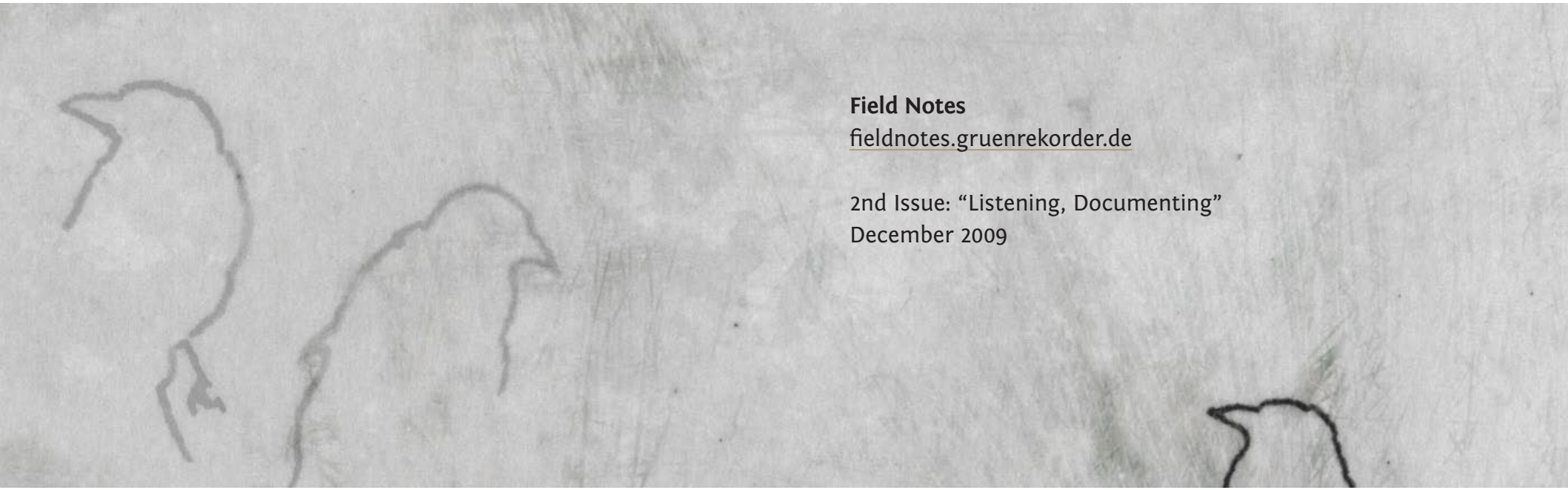

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Editors Daniel Knef, Lasse-Marc Riek.
Idea & Conception Daniel Knef, Lasse-Marc Riek.
Contributions Andreas Bick, Yannick Dauby, Marcus Kürten & Walter Tilgner, Lin Chi-Wei, Stefan Militzer, Gabi Schaffner.
Correction/Lectorship Daniel Knef.
Translation Tobias Fischer, Nicholas Grindell, Marcus Kürten, Lin Chi-Wei, Marlene Nagel, Paul Nutbrown, Gabi Schaffner, Daniel Schiller.
Photography Peter Bretz, Anja Brunsfeld, Franck Chardès, Yannick Dauby (p. 26), Heinz Peter Kapteinat (p. 38), Marcus Kürten (p. 11), Stefan Militzer, miroe, Heidrun Tilgner, Tsai Wan-Shuen, Xu Ya-Zhu.
Layout & Implementation Daniel Knef.
Font *Fontin Sans* von Jos Buivenga.

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Gruenrekorder LC 09488
Georg-Busch-Straße 7
D-63456 Hanau
Germany
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