

# SOUNDWORK

## *The Natural Complexities of Environmental Listening: One Soundwalk – Multiple Responses*

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HILDEGARD WESTERKAMP

The soundwalk audio file is openly available online at:  
<http://ojs.library.ubc.ca/index.php/bcstudies/issue/view/182799>

... the level of sonic awareness attained after *one* soundwalk is quite amazing and really opens up a new perspective of the world ... Especially today with technological disconnect, having a moment of being in the present with nature and your self is an extraordinary feeling.

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### INTRODUCTION

ON 16 AUGUST 2016 an entire afternoon was dedicated to the exploration of the soundscape in and around the grounds of the Bamfield Marine Sciences Centre (BMSC), located on the west coast of Vancouver Island (see Figure 1). Jennifer Schine and Dr. Alexandrine Boudreault-Fournier were teaching a three-week intensive course on Acoustic Ethnography.<sup>1</sup> They had invited me to introduce the students to concepts of acoustic ecology, soundscape listening and soundwalking during the first week of the course.

In this article, I will focus on the soundwalk, which was designed to encourage students to open their ears and to become aware of their own sound preferences, listening habits and responses. In addition,

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<sup>1</sup> In 2016, the Bamfield Marine Sciences Centre ran Acoustic Ethnography, an undergraduate field course offered through the University of Victoria's anthropology department and instructed by Dr. Alexandrine Boudreault-Fournier (UVIC) and Jennifer Schine. Students from various disciplines – including biology, fine arts, anthropology, and geography – sonically explored and documented the unique coastal, marine, and rainforest environments of Bamfield on British Columbia's outer coast. In developing their perception of the coastal soundscape, through this three-week course, students began to understand sound and its expressions in the interpersonal, social, environmental, anthropological, and artistic realms.



Figure 1. View from Bamfield Marine Sciences Centre. Credit: Hildegard Westerkamp.

I structured it for both, an intense aural experience as well as a demonstration of the large variety of approaches one can take in planning a soundwalk. I wanted to leave them with new tools and ideas for organizing and leading such walks themselves in the future.

I had asked Pietro Sammarco, our invaluable teaching assistant, to make an audio recording of the walk, which lasted a good hour. For this article I have created a condensed version of Pietro's recording, in which I aimed to preserve the overall flow of the walk as well as the variety of sound environments and sonic contrasts that were encountered. I invite you to treat this sound piece as a source of information, equally important as the written text. Your ears will detect subtleties that words cannot elicit in the same way. In fact, you will have your own private soundwalk experience here, which will differ considerably from that of the soundwalkers. It is a unique listening stance, as your ears will witness the choices the recordist made in directing his microphone. You can use the section below, entitled Soundwalk Route, as a programme note or guide while listening to the condensed soundwalk.

Lastly make sure to listen with a good pair of headphones or on loudspeakers. Cellphone and laptop speakers will not do the recording any justice and will diminish considerably your understanding of both this text and the recording.

## SOUNDWALK EXPERIENCE

Instructions given before soundwalks are a tool to enable deeper listening. They are always simple and don't change much. The experiences of the participating listeners, however, are always different. The main and only instruction is to walk together without speaking. Everything else is said to make sure that all questions are answered, and everyone feels safe to allow a total immersion into the listening.

For this walk my introduction to the students was longer and more in-depth, as it was meant to form a basis and set the tone for the Acoustic Ethnography course. As well, students were asked to write a report of their impressions of the walk. Only a few of the students had been on a soundwalk before, but all had been asked to read my *Soundwalking* article the night before.<sup>2</sup> The object was to open up their listening to the outside world, the sound environment, as well as to their inner sound world and voices, their inner chatter, thoughts and ideas. Specifically I asked students to be alerted to the moment their listening switches from outside to inside and vice versa and why that switch may have occurred. I also suggested to experiment with different ways of listening, e.g., to perceive the soundscape as a large composition, as Murray Schafer proposed, or approach sound as a student, in Jonathan Sterne's words, or with the ear of a child, an old person, an architect, a film sound designer, a car mechanic or an urban planner, to name just a few possibilities. Finally, and because they were going to learn to make their own environmental recordings during the following days, I asked them to imagine their ears as microphones, capturing every sound around them.

I did not reveal the route in advance, but I did prepare them for four events that required actions from them during the walk:

1. To insert the earplugs I had given to them and later to remove them, upon a signal from me, and to listen carefully to the sonic changes occurring during insertion and removal.
2. To make sounds with their voices during a stretch in the forest, with the express purpose to alert bears of our presence. For this occasion I had offered to each soundwalker two place names from the Bamfield region and had suggested to voice them in whatever way (shout, whisper, different intonations, etc). But I also left it up to them to decide in the moment whether they wanted to make any other kinds of sounds, or any sound at all.

<sup>2</sup> Hildegard Westerkamp. *Soundwalking* (1974 revised 2001), originally published in *Sound Heritage, Volume III Number 4*, Victoria, BC. <https://www.sfu.ca/~westerka/writings%20page/articles%20pages/soundwalking.html>.

3. To make notes about first experiences and impressions when there will be a stop for about 15 minutes halfway through the walk.
4. To participate in a group discussion at the end of the walk and listen to everyone's impressions.

### SOUNDWALK ROUTE

The walk starts with the sound of many footsteps on an indoor stairwell leading towards the door to the outside. The group stops in a location overlooking the beautiful inlet and listens to the outdoor ambience (see Figure 2) (0:26). Continuing along the waterfront, passing various BMSC buildings and past small ship docks, the soundscape is dominated by various hums from building exhaust pipes, water filtration systems, electrical hums, a boat leaving Bamfield harbour, speeding up as it comes to open waters (1:42), and the dense group footsteps on gravel and wood.

The walk then proceeds away from the waterfront. The building and motor hums recede, revealing the distant hum of an airplane underneath footstep sounds (1:55). A car passes, the tiny clicking sound of a grasshopper is now audible (2:06), more footsteps and someone whistling, and then the rustling of leaves, cracking of branches as we walk through undergrowth of a small forest area. Each soundwalker has a chance to sit inside a giant hollow tree stump for a moment, listening to the sudden muted quiet (3:08).



Figure 2. First stop, listening to the sound environment. Credit: Jenni Schine.

Emerging from there, the group walks back through the forest, past the student residence, hearing the crescendo and then the shut off of its exhaust hum (3:27). It is here where I give a signal to the group to put on earplugs. Of course the microphone keeps on recording the soundscape as before and is the only *earwitness* to the transition of footsteps walking from gravel onto soft grass (3:34-3:38). It is in this very quiet spot – probably the quietest spot on campus away from building hums and located in a slight depression – where the soundwalkers take out their earplugs.

The walk continues down a gravel road onto the soft surfaces of the forest trail. By calling out two place names shortly after entering this soundscape, I trigger others to do the same (4:50). Our footsteps on the soft forest floor are muted, changing into a wooden resonance as we walk on built pathways and bridges (see Figure 3). A spontaneous soundmaking activity occurs on one of these bridges, when soundwalkers explore its



Figure 3. Walking across the wooden bridge, listening.  
Credit: Jenni Schine.

resonance by knocking and banging on different parts of the structure, making it sound like a large resonant wood drum (5:06).

At the end of the forest the path opens onto a small beach called Strawberry Point. Here the students are invited to take a break from walking and to write down their impressions (see Figure 4). The microphone records the sounds that occur during that same time, such as crunchy footsteps, a boat passing and quiet water sounds (6:25-8:15).

The group then walks back on the same forest



Figure 4. Listening and taking notes during a break in the walk. Credit: Jenni Schine.

thepath (8:20). Another boat is heard from the inlet, echoing in the forest (8:35) followed by a sound that does not traditionally belong to this environment. It is my surprise for the listening group: I had found out that Alex's husband Noedy Hechavarria Duharte, who stayed at the BMSC for the first few days of the course, was an accomplished saxophone player and had brought his instrument with him. Spontaneously I asked him whether he would like to play for the group in the forest during that part of the walk. He agreed enthusiastically and was totally open to the sonic experimentation I requested from him!

So, when the group reaches the wooden bridge on which the spontaneous "drumming" had occurred on the way to the beach, Noedy stays behind, unpacks his tenor sax, and starts to play short phrases intermittently, leaving silences in between (starting 9:06). I had suggested to him to listen to the forest, to its acoustic qualities and sounds and to interact with what he hears, to improvise in whatever ways he is inspired. As we are walking away from him, I can hear his enjoyment of the forest's reverberant quality, playing fully into it. Sometimes he responds to the bird song that seems to have increased, since he started playing, to the squirrel nearby, or he improvises pitches and musical phrases around the boat motor that passes (9:45-10:40). We can hear the saxophone sounds all the way back to the end of the forest, with our feet treading lightly

on the soft ground. But when we arrive on the gravel road leading back to the Centre our footsteps mask his distant, more faint sounds.

Before the soundwalk ends in the sunshine on a grassy area on campus, I take a leaf from a wild rhubarb plant, and rub its rough surface gently and close to every participant's ears (not included on the recording). And finally, discovering one of the many propane tanks nearby, some participants knock on it and explore its metallic, hollow sounding pitches (10:52, end of recording).

#### HOW STUDENTS EXPERIENCED THE SOUNDWALK

An essential ingredient of a soundwalk experience is the subsequent group discussion – essential because it brings to consciousness the real significance of such a listening process. It gives an invaluable opportunity to compare what was heard and noticed, what was significant for participants, what was not and why, which parts of the walk impressed the most and so on. The variety of responses highlights how complex our listening perception really is.

By including both the recording and the written description of the soundwalk here, I am asking you, the reader, to take the time to involve yourself with the soundwalk on several levels. In this way you develop your own perceptual relationship to the walk, and will be better qualified to understand the intensity and quality of the participants' responses below.

Both in the discussion after the walk and in their report, students highlight different aspects of the walk and articulate in interesting ways their relationship to what they heard. Everyone's expressions of the experience are unique, even in cases where they report on the same occurrences. Interesting also is what is *not* mentioned. I am inspired by the quality and openness of their responses, the words used in the reports and the multiple levels of perception that are revealed. Together with what you have read and heard already, they add another most significant layer of information.

#### FROM SCATTERED MINDS TO CALMED LISTENING

As in most soundwalks, it took *everyone* a while to settle into the walk. Initially most felt scattered, full of inner thoughts and ramblings, one even felt "raw and vulnerable."

... it felt like I was commenting on what I was experiencing, rather than experiencing it meditatively, allowing sounds to occur and pass  
... (Elizabeth Ellis)

It took some time for the inner voices to settle. They did not disappear, but the insistent, irrelevant ramblings of my mind shifted in content and intensity, to become quiet commentary on the experience of listening to and hearing the sounds around me. (Lucinda Johnston)

They all noticed the intense acoustic presence of the group footsteps on gravel – some were irritated by it – and the many hums from the BMSC buildings and research water tanks.

I began this moving meditation feeling very scattered and full of thought. As I became more grounded, my thoughts shifted to the outside world ... I noticed the prominent humming sounds of Bamfield ... These sounds blended in with the sounds of boat engines and floatplanes. I came to Bamfield (perhaps naively) expecting silence. From this moment onward, I was highly conscious of human generated noises, mine included. (Tamara Mills)

Some also struggled with the instruction of not talking in a group context. But eventually most experienced a moment, in which they felt a shift in their perception. They suddenly found themselves inside the act of listening. The self-conscious, critical, and commenting voices had departed. For Tamara Mills it was during the note taking at Strawberry Point that she experienced

an immense sense of calm, as if I had just completed a long meditation... I focused my mind on the quiet lapping of the water on the shore, the slight effervescent sound intermingling with the rustling of leaves, music to my ears.

#### Other students commented

Somebody had placed a chair inside [the hollow tree stump] so we were able to go inside and listen. This was one of my favourite parts of the walk. I have never been inside a tree before ... I could hear a bird calling outside. Its chirps seemed to get stuck in the stump with me. I was aware of being sonically isolated which at first made me uncomfortable, but then I realized how pleasant it felt. I will most definitely return to this place later on for a longer listening experience. (Sarah Towes)

... “we” were no longer a group of individuals listening to the soundscape we were moving through; rather, “we,” as a cohesive whole, were creating the soundscape as our “entity” moved through it. We were no longer passive aural receptors, but were actively engaged in the sonic milieu ... This experience felt powerful ... almost ecstatic. (Lucinda Johnston)

... my learning and my understanding of my own listening and listening processes did not arise out of gravel crunching or birds singing but of a series of “deeply personal” sensitivities and emotional reactions to somewhat minute things. (Lydia Toorenburgh)

#### FOOTSTEPS

One student is impressed by the different “acoustic colourations” of the footstep sounds on various surfaces and finds these words to describe it:

The dry gravel road sounded the harshest and caused me to hear the higher frequencies, while the muffling effect of the dirt path near the forest dampened those same frequencies. At the beach, the wetness of the rocks created the richest sound, allowing me to hear a satisfying crunch that the other surfaces did not provide. (Tamara Mills)

For Lucinda Johnston the group footsteps initially had a masking effect towards the environment, but later they

emerged as a “bordun” of sorts, an accompanying drone or “ground bass” that underlay the rest of the environmental sounds.

Leona Noche relates a transformation in her perception of the footsteps:

I became more conscious about myself. Through my footsteps, I realized that I controlled the way I walked and how much sound I made ... Then, [after the earplug experience] I felt as if the class began to develop a bond ... we unconsciously changed our interpersonal contact by making sounds, which was predominantly caused by our footsteps ...

#### EARPLUG EXPERIENCE

When putting their earplugs in, most participants experienced them as a soundwall towards the sonic environment and felt a reduction in aural space. Most importantly they became aware of the earplugs giving their ears some time to rest and guiding their attention inwards, towards the sounds of their breathing, heartbeat, even blood rushing, or for one student a slight tinnitus in her ear. Elizabeth Ellis pointed out the feeling of immediate disconnect from the sound of her footsteps, and thus their important feedback function on which “we rely for security and orientation.” And here are some further impressions:

I heard my thumping footsteps, and felt heavier with personal thoughts, but the sound of my breathing reminded me to relax ... It

was somewhat a relief to have a moment for myself and take a break from the stimuli-laden soundwalk. (Leona Noche)

Being a quiet person by nature, this experience felt like welcoming back an old friend and was especially welcoming after listening to all the thumps and cracks of feet on the forest floor and the scratch of shoes scraping across gravel ... I could really focus in on the sounds of my body and self, as I became more aware and in a sense retune myself back into my own natural rhythm. It was also in this moment of external silence, in that absence of external sound that I realized how much noise we are exposed to on a daily basis. (Hue Hoang)

... for the first time in my life, I realized that I alone was actually adding a significant amount of sound to the environment ... I described my personal sound addition to the entire forest ecosystem as a “soundprint,” ... no matter how little sound I made, my soundprint would always exist ... even if only through vital biological functions such as breathing ... (Sarah Towes)

The earplugs had given everyone’s ears some rest and when I asked the group to remove their earplugs in one of the quietest areas of the BMSC campus, their hearing perception had been sensitized noticeably. Someone noted “the light rustling of the grass,” or felt a “deeper connection and new appreciation” towards her surroundings, “listening with a new set of ears” at that moment.

The time of rest reactivated my hearing, and I was acutely aware of the sounds of the tall grass ... (Elizabeth Ellis)

I noticed immediately that my hearing was hypersensitive compared to how it was previous to wearing them. I looked at the grass right near me and I felt like I could hear the exact piece of grass that the wind was touching with every tiny gust of air. I loved the swoosh sound of the grass at my feet as we walked near the tennis court. My ears were such sensitive tools at this time that I felt like I could also zoom out beyond my personal sound generation and hear the swooshing of the grass generated by the collective group as well. The mixture of different paces and emphasis of the step of each individual was making the overall sound so unique and interesting, with no consistent pattern or tempo. (Sarah Towes)

VOICING PLACE NAMES, THE ROLE OF THE CHILD  
AND OTHER SOUNDMAKING

During the discussion after the walk, it became clear that the suggestion to call out the place names once we get to the forest, or to use their voices in any other way, had caused some discomfort and even anxiety in quite a few of the participants. They had settled into the act of listening and not-speaking by that time, so much so, that it suddenly felt difficult to break the deep quiet of the forest environment. In fact, I sensed that the group wanted to really hear and experience the forest silence. As one group member pointed out during the discussion, “this silence has something to say, it’s worth listening to.”

The bears were not a concern at that moment and – like an unspoken group decision – their voicing of place names that did happen, was paced with silence in between and as a result created an interesting balance between the human sound presence and the quiet ambience around us. Interestingly, very few students mentioned the vocalizing in their reports. Here are just two accounts:

I [had] found comfort in the silence, and breaking it made me feel anxious. I quietly said my two place names, once each... Part of my hesitancy was knowing that there was audio documentation, but I also recognized underlying social behaviours that condition us how to act in public, what kinds of sounds are acceptable and appropriate. I was relieved to hear Alex’s son exclaim “Black Lake” and “Bamfield” with no inhibition. Having a child around reminded me of the importance of curiosity and disruption. (Elizabeth Ellis)

Seven-year old Izak (Alex and Noedy’s son), was so relieved that he could *finally* make sound, that the place names given to him burst out of him with joy and a sense of freedom (4:50)! His spirited voice ended up freeing others to participate in vocalizing, as if he had given a sonic gift to the group.

I was completely immersed in listening and I had difficulties vocalizing ... I enjoyed hearing the echoes of various names from ... afar and the ... whispers nearby. I felt that the acoustic horizon of the group expanded within the forest and became more significant. As if we were introducing ourselves to the space. (Leona Noche)

Only one member of the group mentioned the spontaneous soundmaking on the wooden bridge in her report:

... the moments where sound was manually produced were my favourites ... Although the knocks, pats, thumps, and scrapes began slowly, as more people caught up and began joining in, the random sounds slowly formed a distinct rhythm. Just before we ended and faded off, I remember feeling a sense of excitement and exhilaration because we as a group were able to create a unique rhythm without any verbal cues. As the last knocks slowly faded away, in that absence, I felt a sense of awe at the loud silence left in the wake of the knocks ... having a moment of calm and quiet where one could appreciate in admiration the vastness of the world above, and the beauty around us, was truly inspiring. (Hue Hoang)

#### SAXOPHONE

Most soundwalkers expressed real surprise – as I had hoped – when they heard the saxophone. Many associated its first sound with the boat that had just passed and thought it was a boat horn. Here are some of their comments:

[the sound of the saxophone] was not intrusive but rather complementary. I became aware of the sounds of birds chirping, harmonizing with the notes of the saxophone. Together they created a duet that filled the reverberant forest. (Tamara Mills)

It seemed that the entire forest was activated and was communicating with the music. (Elizabeth Ellis)

It sounded like the player was trying to imitate the wild cries of an animal in the forest, almost like the honks and huffs of a grand majestic beast. The birds in the topiary responded in kind, singing and creating harmonies with the saxophone. When I first heard the saxophone however, I was struck with the feeling of discomfort, confusion, and slight annoyance ... The intrusion of a man-made instrument invading the peace was difficult to discern. My thought at that moment was about how mankind feels the need to overcome nature and control it, as if colonizing or urbanizing it. However, as the music continued trying to harmonize with nature, I felt the conflict and surprise within me being resolved. As we walked further away from the saxophone, I noticed my ears kept straining to listen for more with anticipation. (Hue Hoang)

During the discussion Noedy shared his experience of playing in the forest. Initially he tried to listen to and imitate the sounds around him,

stay in harmony with the ambience. Slowly he felt increasingly free to play out into the reverberant space of the forest. When the boat passed, its very clear pitch range caused him to play within and around the tonality of the boat drone. After that he explored sounds with and for the birds. He stated that he normally plays in small, mostly indoor places. Here he felt really big and enjoyed filling the space with his sounds.

#### SOUND TEXTURES

I had an epiphany near the end of the soundwalk that sounds can also have textures! It was not until Hildegard began feeling the rough dry crunchy leaves that I realized sounds could be described as textures, as obvious as it may seem. (Hue Hoang)

#### FINAL REMARKS

The overall experience of the soundwalk led to a fair amount of thoughtfulness and new discoveries in the students, of which I want to share the following statements with you.

As a sound student and a student of yoga, I drew parallels between the two for their appreciation for slowness, for introspection and contemplation. Rather than through controlling our environment, yoga teaches us equanimity and to be present. Similarly, soundwalking and an awareness to the soundscape call attention to the fleeting nature of our attentiveness and the ephemerality of our sensorial experience. (Tamara Mills)

... the reduced inner chatter, heightened awareness and altered consciousness, were all products of the soundwalk; ... They are also all hallmarks of a meditative state, an outcome I had not anticipated. (Lucinda Johnston)

For many women, the expectation of silence is too familiar. We are socialized to listen more than to talk. For this reason, Hildegard's Soundwalk pushes against the flow in an unexpected way, to reconsider silence as active, and the listener as holding agency. (Helen Reed)

...by the end of the soundwalk, there was a definitive change in my mental state, as if in a meditative state, no longer distracted but quiet and content. The pace that Hildegard set also added to the ambience of the environment, walking at a steady pace, and even her manner of directing us to specific spots allowed me to calm my mind down matching her rhythmic motions. (Hue Hoang)

I realized that my ecological footprint – or single impact on the environment – had connections to this newly discovered soundprint. I reasoned that no matter where I was I would be making sound, which would become part of the overall environment. I then thought a lot about sounds I had made in my past which were actually quite disruptive to the natural environmental sounds and how that disruption could potentially even be classified as a type of pollution. Therefore my overall ecological footprint is not just about my consumption of resources such as food and water, or the concentration of carbon dioxide emissions I am personally responsible for. Now there is another dimension that I never before considered – that I was also capable of producing this new type of waste. (Sarah Towes)

## EPILOGUE

The soundscape can be analyzed scientifically with sound level meters and a multitude of measurement tools. But such study is incomplete if our listening perception is not involved in such an analysis. I have discussed this soundwalk from many perspectives here and have presented the students' responses to it in great detail, with the aim to highlight and demonstrate the immense complexity of our listening perception. The more we know about *how* we listen and what the sounds/soundscapes mean to us, the more we will be able to identify problems in the soundscape and in our perception and treatment of it. In conjunction with a scientific approach, an inclusion of rigorous perceptual inquiry may animate positively and energetically the search for solutions in our often overwhelmingly loud and dense soundscapes.

For many years there have been attempts to bring arts and sciences together in collaborative projects, based in the recognition that both approaches have their importance, but together they may achieve more. I believe the source of this desire to connect the sciences and the arts is based in the recognition that ecological issues in our world must be tackled from all possible perspectives. Much needs to be done to deepen the connection between arts and sciences and our understanding of each other's approaches. But it is commendable that the BMSC dared to take this Acoustic Ethnography course into its folds, despite the fact that it had little to do with marine sciences. If we can manage to bring together the detailed and creative perceptual curiosity and knowledge of the artist with the detailed inquiry and knowledge of the scientist, it may be possible to deepen our approaches to ecological care for the world.