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# Hildegard Westerkamp and the Ecology of Sound as Experience. Notes on *Beneath the Forest Floor*

by Frédérick Duhaupas and Makis Solomos  
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## Abstract

A pioneer of acoustic ecology, the composer and *soundmaker* Hildegard Westerkamp shows that sound is not only a mere vehicle of representation or way to arouse emotions: her musical works and writings activate an awareness that sound is a decisive dimension of the world. In this view, music becomes dialectical, allowing us to construct a subjectivity that would care for the world. The expression of this idea follows two modalities: on the one hand, it understands music as *experience* and, in particular, as experience of *place*; and on the other hand, it puts forward music's capacity to create links, connexions and bonds. The 1992 two-track tape *Beneath the Forest Floor* illustrates the development of these thoughts. "Composed from sounds recorded in old-growth forests on British Columbia's West Coast," this work "moves us through the visible forest, into its shadow world, its' spirit; into that which [a]ffects our body, heart and mind when we experience forest" (H. Westerkamp, "Beneath the Forest Floor," [http://www.sfu.ca/~westerka/program\\_notes/forestfloor.html](http://www.sfu.ca/~westerka/program_notes/forestfloor.html)).

## Introduction

A pioneer of acoustic ecology, composer and self-described *soundmaker*, Hildegard Westerkamp is known for numerous soundscape compositions using environmental sounds, and for her ecologically minded considerations (Westerkamp 1988, 2002, 2007, 2011). In her music and writings, she develops the idea that music can activate an awareness of sound in which sound is approached as a decisive dimension of the world. In this view, music becomes dialectical, allowing us to construct a subjectivity that would care for the world. Westerkamp's approach belongs to a larger effort to build awareness of our sound environments and their acoustic qualities, aiming to understand our own listening relationships and interactions with these environments. It is a question of proposing points of reference to listeners to make them aware of the sense and impact of sounds, which are often perceived unconsciously, so as to appropriate them.

To analyze this approach, we will focus on one of its most important dimensions, conceiving music as *experience*, and in particular, as experience of *place*. *Beneath the Forest Floor* will serve as example for this analysis. With its sounds recorded in old-growth forests on British Columbia's West Coast, this 1992 two-track tape soundscape composition takes the listener into an immersive journey inside the mysterious world of rich acoustic and historical environments. As we shall see, this work is a good illustration

of how soundscape composition can create a space for reacquainting ourselves with experience.

## On Experience

### *Erfahrung and Erlebnis*

In the ecological conception of sound that Hildegard Westerkamp develops, there is a strong emphasis on human *experience*. In her writings, she infrequently or indirectly addresses this notion. Our use of the term is inspired by Walter Benjamin's philosophy. In the 1930s, Benjamin developed the idea that modern times push toward the impoverishment of experience. To explain this idea, he introduced a distinction between *Erlebnis*, which can be translated as "lived experience," and *Erfahrung*, "experience per se" or "genuine" experience (Benjamin 1939). The mode of experience specific to the new world is determined by the growth of technology (including characteristics such as speed and circulation of information), which establishes *Erlebnis*, a type of experience inscribed in primary reaction to the present and ephemeral moment, at the expense of *Erfahrung*, which introduces the possibility of a collective and continuous memory. It would be off topic to develop this idea further here; let us only insist that the interest of Benjamin's analysis lies in its dialectical position.

On the one hand, committing himself to the revolutionary political movements of the time as well as to modern art, Benjamin considers the loss of experience as a necessary condition to build a new world, where individuals could construct themselves from nothing. In this world, one would prefer glass or steel architectures. "If you enter a bourgeois room of the 1880s, for all the coziness it radiates, the strongest impression you receive may well be, 'You've got no business here,'" states Benjamin. "And in fact you have no business in that room, for there is no spot on which the owner has not left his mark [...]." He adds, "This has now been achieved by Scheerbart,<sup>1</sup> with his glass, and by Bauhaus, with its steel. They have created rooms in which it is hard to leave traces" (Benjamin 1933, 734).

On the other hand, Benjamin insists that "the lived experience (*Erlebnis*) specific to urban modernity [prevents] the 'so to speak spontaneous persisting image', by its mechanical rhythm, its journalistic chatterings and its crowd movements, in short its reifying character—an image that is, however, revived by the taste of the madeleine" (Bredet 2005, 20).

Hildegard Westerkamp's music is not without affinities with glass or steel transparent architecture, which allow the individual to move freely. But this architecture is not conceived as a sanitized place—all sorts of "madeleines" and "traces" can be found within. As a matter of fact, Westerkamp reevaluates experience (*Erfahrung*), but without invoking the authority of the elders or the privileged.

### *References to personal life*

Thus her work is crossed by many references to her own life. These references are transparent and light. They do not have an exhibitionist character, nor do they seek to carry the listener in a spiral of empathy. They are simply there, giving evidence to the possibility of experience. In *Für Dich* (2005), for example, different people closely

related to the composer read Rilke's poem "Liebes-Lied." The listener can also hear sound recordings from places important to Westerkamp: Vancouver, where she has lived since the late 1960s, and North Germany, where she was born. In *Breaking News* (2005), the material features recordings of her grandson's voice, and in *Moments of Laughter* (1988), we hear her daughter's voice. Elsewhere, Westerkamp "enters" the work herself. For instance, in her first recognized piece, *Whisper Study* (1975–1979), she works with her own whispering. And in *Breathing Room* (1990), she records her own breath, reflecting music "as breath-like nourishment," and describing breathing "as nourishing musical space..."

The breath—my breath—is heard throughout the three minutes. All sorts of musical/acoustic things happen as I breathe in and out. Each breath makes its own, unique statement, creates a specific place in time. Meanwhile the heart beats on, propelling time from one breath to the next. (Westerkamp 1990)

Why her own breath? It is probably a question of transmitting an experience, of conceiving music as an experience happening here and now. From this perspective, listening is primary and immediate: each act of listening constitutes an experience, each experience recreates a listening. Thus, we seem to depart from the usual notion of music, at least this is what Westerkamp posits, noting that she is "no longer interested in making music in the conventional sense," instead she is "interested in addressing cultural and social concerns in the musical idiom." She relates further,

That's why I use environmental sound and language as my instruments. I want to find the 'voices' of a place or situation, voices that can speak most powerfully about a place/situation and about our experience in and with it. I consider myself as an ecologist of sound. (Westerkamp 1985, 8)

### *Experience of place*

In the traditional conception of music, sound constitutes a means to elaborate representation or to arouse emotions. In the ecology of sound that Westerkamp supports, sound is understood as a decisive dimension of the world. Music becomes a dialectics by which our relationship to the world can be contemplated, and a subjectivity that would take care of the world can be constructed because sound and music give account of experience. As previously noted, a light, transparent, non-empathetic integration of personal traces characterizes Westerkamp's music; these traces correspond to what she calls "situation" in the above quotation. She similarly speaks of "places," referring to experiences of another nature.

Soundscape composition deals with this kind of experiences. In the article, "Linking Soundscape Composition and Acoustic Ecology," Westerkamp categorically refuses the idea that soundscape composition might be regarded as a subcategory of *musique concrète*. Supporters of this vein, if we take literally the positions its "inventor" Pierre Schaeffer (1966) defines in his *Traité des objets musicaux*, contend that the listener should focus only on sound's morphology; sound should be cut off from its origin and decontextualized to the extent possible. On the contrary, "acoustic ecology or soundscape studies [consists of] the study of the inter-relationship between sound, nature, and

society” (Westerkamp 2002). Thus in soundscape composition, the origin of a specific sound should be transmitted, even if it is, physically speaking, decontextualized by recording. The experience of the global context—in which the sound was born, developed and disappeared—should be transmitted to the listener, and through it, the experience of a specific place related to this context. Thus, *Für Dich*, previously mentioned for its soundscapes related to the composer’s personal life, “explores a sense of place and belonging, of home and love” (Westerkamp 2005).

The experience of place is also the aim of environmental pieces such as *Fantasie for Horns II* (1979), in which horn sounds “are soundmarks that give a place its character and give us, often subliminally, a ‘sense of place’” (Westerkamp 1979). It is also the purpose of sound installations. For example, the visual and sound installation *At the Edge of Wilderness* (2000) “explores the moment of encounter between the contemporary visitor and the abandoned industrial sites” (Westerkamp 2000). Not to forget, finally, soundwalks and soundwalk-based compositions like *Kits Beach Soundwalk* (1989).

### ***Beneath the Forest Floor: subjectivity and experience***

#### *'Beneath the Forest Floor'*

To illustrate these issues on the notion of experience, we will focus on *Beneath the Forest Floor* (1992). This two-track piece is the result of a commission by CBC Radio and was produced in CBC’s Advanced Audio Production Facility in Toronto (Westerkamp 1992). For this soundscape composition, Westerkamp used recorded sounds taken from ancient forests of British Columbia’s West Coast. The composer made most of the recordings herself during the summer of 1991, mainly in the Carmanah Valley on Vancouver Island but also in the forests close to Cowichan Lake as well as on Galiano Island and in Lighthouse Park near Vancouver. The Carmanah Valley’s forest is known, as the composer underlines, to have one of the tallest Sitka spruce ever known on earth and cedar trees older than one thousand years (Westerkamp 1992). (Note Fig. 1 and 2.)

**Fig. 1.** *The forest in Carmanah Valley. Photo by Hildegard Westerkamp, July 1991.*

**Fig. 2.** *Lake Cowichan southwest side. Photo by Hildegard Westerkamp, July 1991.*

*Beneath the Forest Floor* explores a natural environment with a focus on the acoustic specificities of place. The piece operates on the encounter of different sounds recorded in these forests: sounds of running water, birds, flies, mosquitoes and mysterious sounds resulting from studio treatment (McCartney 1999, 344). Thus, a simple adult raven’s croak can become a deep muffled “throb that seems to come from the depths of the earth.” (Bernstein 1993 quoted in McCartney 1999, 344). This heavy and deep sonority, which regularly returns as a percussive beat to punctuate the piece, particularly at the beginning and the end, was indeed obtained by slowing down the raven’s croak (McCartney 1999, 141). This sound can also be heard at normal speed at different moments of the piece, for instance at the beginning (at 0’26’’) or inside a moment of silence in the middle of the work (at minute 8’17’’). There is also another adult raven’s croak, a larger one, which we can hear for instance at 2’49’’, and which was recorded by Norbert Ruebsaat, Westerkamps’s former husband—again a reference to the

composer's personal life.<sup>2</sup> Also present are other small sounds of birds that "when slowed down, yield shimmering sounds" (Bernstein 1993 quoted in McCartney 1999, 344). In a way, these sounds seem to suggest the light and the life force of the forest. Globally, the interaction of these sounds contributes to creating an atmosphere, which is at once peaceful, mysterious, ethereal and unreal.

As the composer explains, *Beneath the Forest Floor* "moves us through the visible forest, into its shadow world, its spirit; into that which [a]ffects our body, heart and mind when we experience forest" (Westerkamp 1992). Westerkamp insists on the deep inner peace "transmitted surely by the trees who have been standing in the same place for hundreds of years" (Westerkamp 1992). Thus, as she writes, *Beneath the Forest Floor* seeks to create a space to experience the peace of this place. A contemplative character therefore marks this composition.

#### *Rediscovering one's inner voice*

Beyond the mere suggestion of apparent expressive qualities and figurative images, this work aims to appeal to physical and psychological sensations aligned with the sound characteristics of a forest environment far removed from the acoustic agitation of the urban soundscape. For Westerkamp, the relaxing peaceful properties of high quality sound environments, such as those of the forest, give us the opportunity to return to the acuity of listening. The piece immerses the listeners in the deep serenity emerging from these sounds, inviting them to focus on their "inner voice" (Westerkamp 1992).

...the sounds in the wilderness have something to 'say' to us about the environment, about the season, the time of day, about the life that we encounter in this space. (Westerkamp 1988)

*Beneath the Forest Floor* encourages us to renew contact with an active listening experience. It not only aims at a pure contemplation of an objective soundscape but also enhances a dialogue between these external sounds and our own "inner life". As a matter of fact, the composer wants to show that the sounds of a quiet, peaceful forest environment offer us a space to focus on our own inner voice, a space in which we can be rid of the restless sensations caused by urban acoustic environments. In other words, listening to these sounds becomes a question of refocusing on oneself. According to the composer, an extended experience within an acoustic environment, such as that of this forest, allows us to adjust ourselves progressively to quiet surroundings. Then, Westerkamp (1988) describes "a desire [that] emerges to express, to voice, to put ourselves acoustically into the environment—but now in a more sensitive way than when we first arrived." She states,

The hi-fi soundscape encourages this. Its acoustic space allows us to explore and find our own voice, to find the voice that wants to interact with the voices of that place, to find the music for and of such a place. (Westerkamp 1988)

For Westerkamp, nowadays, the search for our inner voice through nature's voice constitutes a political act. Because, as she says, "in that act, on this continent, one moves in opposition to the dominant political voices, who no longer hear nature's voices, who

no longer understand the meanings of nature's voices, but can only see nature as a place for resource extraction and profit" (Westerkamp 1988).

*On experience in 'Beneath the Forest Floor'*

After these few developments, it should be clear that the sounds of *Beneath the Forest Floor* are not cold, objective recordings or transcriptions of a soundscape but aim to transmit the experience of a place, the experience of Westerkamp's living relation with these forests, and the way this environment talks to her and opens a listening to her own inner voice. It is a question of creating links, connections, and bonds—to make this experience alive enough to share with listeners an intense relation with these forests.

Thus, we could say that she leaves her trace the way the handprints of the potter cling to a clay vessel.<sup>3</sup> In Westerkamp's hands, soundscape composition opens a space for creativity through a constant dialogue between sounds and what they suggest as possible developments. The creative gesture is not predetermined; it emerges along with the dialogue she maintains with the sounds, their particularities, their meaning, and their context. Creation becomes the result of a constant discussion between sounds and the composer's voice. *Beneath the Forest Floor* reinvents the idea of experience by the interaction of the forest's sounds, the creative voice they elicit within the composer, and the listener's voice.

Beyond musical experience, *Beneath the Forest Floor* is an invitation to visit places like Carmanah Valley, a victim of massive deforestation with more than half of the forest having now been destroyed. As Westerkamp explains that apart from encountering the overwhelming "stillness...."

a visit will also transmit a very real knowledge of what is lost if these forests disappear: not only the trees but also an inner space that they transmit to us: a sense of balance and focus, of new energy and life. The inner forest, the forest in us. (Westerkamp 1992)

In this forest, as Westerkamp (1988) contextualises, "aside from the fact that we experience a lowering of our threshold of hearing, we also become acute listeners because the sounds in the wilderness have something to 'say' to us about the environment, about the season, the time of day, about the life that we encounter in this space." In this way, she points out, "...this information is vital for our orientation, our survival and feelings of connectedness. If we open our ears to this soundscape without fear, we realize that every single sound in the wilderness has a meaning, which is worthwhile knowing about." What this means, she affirms, "As we understand the meaning we are placed more firmly within the context of this environment. We become part of it and stand in an interactive relationship with it" (Westerkamp 1988).

For a long time, music has focused on the production of autonomous objects, erasing the listener's relationship to the world in favour of a deep interiority.<sup>4</sup> This idea of music was a historical conquest, which allowed music to renounce functionality (religious or social); but it results in a kind of autism that can be taken by cultural industry to serve its own interests. This is why the notion of ecology of sound briefly developed here through Hildegard Westerkamp's thought and music is becoming necessary. This notion allows us to reconstruct the links, the connections, the bonds;

instead of being reified objects, sounds invite us into an act of listening, constituting an experience by which we can change our relationship to the world.

## End Notes

1. Paul Karl Wilhelm Scheerbart (1863–1915), pacifist writer, one of the founding fathers of German expressionism.
2. In a first version of this article, we were saying (based on Bernstein 1993 quoted in McCartney 1999, 344) that the raven's croak recorded by Norbert Ruebsaat was the one that is slowed down. Hildegard Westerkamp gave us the following precision: "The raven's croak recorded by Norbert is not the one that produced the low frequency throb. It is the one that is heard at the beginning (at 0'26''), and is purposely put alongside its own transformed/processed sound, the throb. When working on the piece it amazed me that this raven's specifically 'grainy' call against a very quiet, slightly reverberant ambience produced this specific and clear throb when slowed down (pitch shifted). No other raven call recording gave me this. Norbert's recording came from a larger raven and when I tried to slow it down, it gave me an entirely different sound, that I did not use in the composition. That raven has a deeper, throaty sound and for your information, appears for the first time at 2'49'' in the piece and comes back one or two more times later—always with water or wind sound in the background, because the original recording had a hissy background ambience (recorded on cassette, I believe) that I wanted to mask" (Hildegard Westerkamp, email to Frédérick Duhautpas and Makis Solomos, December 2013).
3. We are paraphrasing here a Benjamin's text Benjamin 1936, 91), which is also quoted by Felix Guattari (2005, 69).
4. "The core of assumption in Western aesthetics concerns the *attribution of emotion-producing qualities to music conceived strictly as sound*. By this is meant that we in Western culture, being able to abstract music, and regard it as an objective entity, credit sound itself with the ability to move the emotions. (...) In other words, the Western aesthetic separates the experience of music from its social context. When one is moved by the music in that sense, one is moved *internally*, privately, as an individual" (Westerkamp, 1988).

## About the Author

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**Frédérick Duhautpas** is a musicologist and teaches at University Paris 8 as *Maître de conférences*. His main areas of research concern aesthetics, and most specifically expressiveness, significations, emotion, social and political issues in musics. He tends to favor a multidisciplinary approach to musicology including sociology, psychology, philosophy, hermeneutics and semiotics. He is the author of several publications dealing with expression and modern music.

**Makis Solomos** is Professor of musicology at the University Paris 8 and Head of the music and dance research team. His main fields of research are today music (exploring subjects like Adorno, globalization, new technologies, spectral music, electronic music,



the emergence of sound, ecology of sound...). He is also one of the main specialists of Xenakis' music. He has published many articles and books, and he has organized symposiums on various topics. His last important book is: *De la musique au son. L'émergence du son dans la musique des XXe-XXIe siècles* (Rennes, Presses universitaires de Rennes, 2013), which analyses the way how sound became a major issue for today music. He has co-founded the review *Filigrane. Musique, esthétique, sciences, société*.

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